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A REGRESSION ANALYSIS FOR
UNIT COSTING
AT NAVSUP ACTIVITIES

by

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Unit costing is one of the important issues being faced by the Department of Defense (DoD). The ability to predict the cost required to generate a productive unit output is necessary because of current guidelines regarding the management of the limited resources available to the DoD. This thesis investigated the feasibility of developing such forecasts for the Naval Supply S stems Command (NAVSUP) using regression analysis. The analysis met with little success, most probably because the limited available data has only been recorded over the last 21 months due to the newness of the requirements of unit costing. The one positive result of the analysis was the discovery that some of the cost centers analyzed are affected by seasonality. In addition, the data for the last nine months appears to be better than the previous 12. This may be due to cost centers becomming accustomed to monitoring costs and outputs more precisely than has ever been done before.

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A Regression Analysis
for Unit Costing
at NAVSUP Activities

by

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Submitted in partial fulfillment
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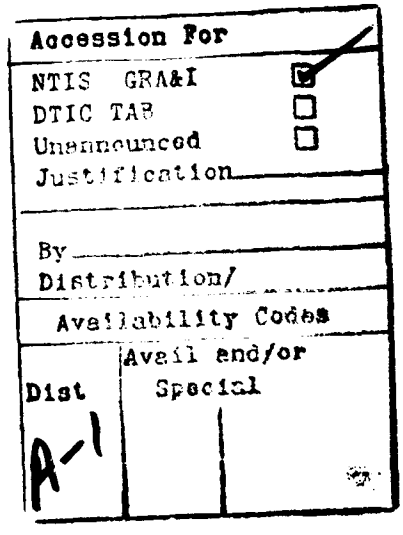
ABSTRACT

Unit costing is one of the important issues being faced by the Department of Defense (DoD). The ability to predict the cost required to generate a productive unit output is necessary because of current guidelines regarding the management of the limited resources available to the DoD. This thesis investigated the feasibility of developing such forecasts for the Naval Supply Systems Command (NAVSUP) using regression analysis. The analysis met with little success, most probably because the limited available data has only been recorded over the last 21 months due to the newness of the requirements of unit costing. The one positive result of the analysis was the discovery that some of the cost centers analyzed are affected by seasonality. In addition, the data for the last nine months appears to be better than the previous 12. This may be due to cost centers becoming accustomed to monitoring costs and outputs more precisely than has ever been done before.



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I INTRODUCTION

A. Background

One of the results of the changing world environment during the late 1980's and the early 1990's is the so called "peace dividend." This "peace dividend" forces the Department of Defense to manage its limited monetary resources even more frugally than in the past. In an effort to manage the scarcity of the available money given to the Department of Defense (DoD) by Congress, DoD has issued some rather specific guidelines to the various military services. In fact, these guidelines are becoming ever more specific each year. The indications are that the guidelines will also be increasing in scope with each fiscal year. Gone are the days when each Service was able to use a unique system. Consolidation and sameness are the new philosophies of the Department.

The current guidelines require the use of unit costing. The current Comptroller of the Department of Defense guideline's state:

> Every manager and employee is encouraged to seek ways to become more efficient and effective. . . .a DoD-wide cost per output, or unit cost, resourcing system will be developed for a number of major functional, or business, areas to enhance visibility of costs and contribute to better management of resources. . . .All base operations costs will be considered part of doing business and will be treated as an overhead function or General and Administrative (G&A) expense recorded in the appropriate business area accounts. . . .The unit cost concept is that

> all of the costs incurred at an activity, or within a function, should be related to an output of the activity. . . .The goal is to have each product or output bear as accurate a cost as possible. . . .In addition to providing a means to consider costs as part of day-to-day decision making, unit cost provides visibility of cost drivers. Cost drivers can be those actions taken that contribute to the accomplishment of an output or a product at a significant cost and should be evaluated for value added. [Ref 1: pp. 1-2]

The Naval Supply Systems Command (NAVSUP) is one such command that must follow this philosophy. Within NAVSUP the above mentioned unit cost approach is called the productive unit resourcing system (PURS). NAVSUPINST 7000.21A describes the responsibilities of NAVSUP controlled personnel in the management of the Operation and Maintenance, Navy (O&M,N) budget execution process under the productive unit resourcing (PUR) system [Ref 2: p. 1]. The concept expressed by the NAVSUP Instruction is that:

> Under the productive unit resourcing system, NAVSUP commits to fund workload at the required level of performance; i.e., field activities will be funded on the basis of actual work performed vice the fixed workyear/cost funding methodology used previously. [Ref 2: p. 1]

Although NAVSUP's concept was developed before the Department of Defense guidance, it reflects basically the same philosophy.

As a consequence of the above directives, it is becoming more important each year to be able to predict just how much funding will be required at each activity, given their anticipated level of production output. In particular, NAVSUP wants the ability to predict dollar amounts each cost center

will spend per productive unit of output. The NAVSUP concept emphasizes that work units are dependent upon many various externalities. One such an example is Desert Storm, as it obviously caused many cost centers to generate many more productive units than anticipated when making the initial fiscal year projections.

B. Thesis Objective

At NAVSUP's request, an investigation was conducted of the feasibility of using linear regression analysis for forecasting the costs associated with a unit of basic output for a wide variety of NAVSUP cost centers.

The first step of the analysis was an examination of the data in Appendix A. The results were that of the 156 cost centers 53 had no Units data available and therefore could not be analyzed. The definitions of the cost centers and a short description of what encompasses each cost center's productive units as described by NAVSUPINST 7000.21A are listed in Appendix B.

The second step was to subject the data of those cost centers for which sufficient data existed to analysis by basic statistical forecasting methods, including regression and seasonality effects, in an attempt to develop a predictive model for each of these cost centers.

C. Scope, Limitations, and Assumptions

The data furnished by NAVSUP for each of the 103 cost centers analyzed covered the time interval between October 1989 and June 1991 (21 months). The data was provided in a *Lotus 123* format. Only this data was analyzed.

With the exception of the data entries identified by a negative value, all data furnished was assumed to be correct. The negative numbers observed in both the Units and Dollars fields were assumed to be errors and were not used in the analyses.

D. Preview

Chapter II begins with a description of the preliminary data analysis. It discusses how the furnished data was reorganized and the initial problems found with the data. The chapter also explains the regression model and its associated assumptions.

Chapter III presents the analyses of the data, describing how the regression functions were derived and presenting the results of statistical tests.

Chapter IV contains the analyses of the data using seasonality indices computed from that data. This chapter includes regression analyses of the deseasonalized data. The chapter also addresses potential problems with using the resulting regression functions.

Chapter V presents a summary of the thesis, conclusions drawn from the analyses, and recommendations for what to do next.

II ANALYSIS OF THE PROBLEM

This chapter deals with the preliminary data analysis. It discusses how the furnished data was reorganized into a more useable form and the initial problems found with the data. The chapter also explains the regression model and its associated assumptions.

A. Activities and Cost Centers

The data files were formatted into activities and cost centers. A cost center is a part of the activity that has a specific productive unit function associated with it. For example, DB is a disbursing cost center whose productive unit is primarily the number of checks issued. An activity can contain several different cost centers, and most cost centers are located in more than one activity. The data furnished consisted of 18 activities and 156 cost centers. Appendix A contains a glossary of acronyms and the listing of activities and cost centers.

The analysis was done strictly on the data. No attempt was made to determine the basis for what consists of a work unit or its output for any of the cost centers. The differences in missions of the various activities also was not considered in the analysis.

B. Data

All data analyzed was furnished by NAVSUP. The data was contained on a floppy disk in *Lotus 123* format and was divided into two files. One file contained Fiscal Year 90 data and the other contained Fiscal Year 91 data. Each row of data consisted of one cost center with the number of units of production listed in monthly order, followed by a listing of the monthly dollar amounts.

The first step of the analysis was to convert the files into a useable format which would facilitate statistical analysis. The two files were first converted into one large file. Then the file was separated into individual files, one for each activity. An activity is the physical command, for example ASO is an activity.

Each activity's file was subdivided further into its separate cost centers.

Finally, the data for each cost center was converted from one long row into three columns consisting of month and year, units of output, and dollars expended. The NAVSUP data in this final format is as shown in Appendix B.

C. Presumed Accuracy

The data furnished and as evaluated in its final form was assumed, with the exceptions listed below, to be a complete and accurate representation of the true circumstances.

1. **Missing Values**

The data for 84 of the 156 cost centers showed zero-filled or blank costs and/or units for at least one of the months. Those observations with blank or zero data were not used in the analysis. Fifty-three cost centers had completely blank or zero units of output.

2. **Negative Values**

There are also several instances of data containing negative units or dollars. When queried about the negative values, NAVSUP personnel indicated that such occurrences are impossible and most likely were simple errors. It was agreed upon with NAVSUP that the best and most consistent way to handle the negative data was either to ignore the data or simply disregard the negative sign. The first option was chosen because the concern that disregarding the negative sign would result in badly distorted observations. Appendix A lists the data with the negative values included.

D. Time Lag

One of the early concerns about the furnished data was whether it contained any lag time between reporting the units and when the obligation of dollars occurred. Telephone conversations with NAVSUP personnel revealed that the data furnished had already been corrected for any possible lag times. This was accomplished by the reporting method. Although the reported work units may have occurred at some

previous time in relation to the period reported, the obligations of dollars were recorded during the corresponding month in which the units were finally identified and shown as completed.

E. The Regression Model

Since the desire of NAVSUP was to predict the amount of dollars spent to generate a certain number of productive units, the number of productive units was assumed to be the independent variable and the costs (dollars spent) to be the dependent variable. The regression model used assumed a simple linear relationship between the two variables over their ranges of possible values.

The basic goal of linear regression analysis is the derivation of a formula for a straight line that best represents the actual relationship between the dependent and independent variables, dollars and units. The least squares approach is the usual way to accomplish this. The basic principle is that there exists an infinite number of lines that can be drawn on a plot representing the data, but there is only one that best fits the data in the sense of least squares. With this line the sum of squared prediction errors are the smallest in relation to the actual observations. The procedure is common and complete details on the process can be found in most statistical textbooks (see, for example, Reference 5).

1. The Regression Model

The regression model is: $Y_i = \beta_o + \beta_1 X_i + \epsilon_i$, where

- X_i is the independent variable, units for this analysis;
- Y_i is the dependent variable, dollars for this analysis;
- β_o is the Y intercept of the regression line. It indicates the point where the regression line actually intercepts the Y axis. It estimates the average value of Y when X equals zero. [Ref 3: p. 18]
- β_1 is the slope of the regression line, and;
- ϵ_i is the residual error associated with the ith observation. This term represents the difference between the model's result and the actual observed value Y_i for a particular X_i. This term does not appear in the fitted lines.

The least squares formulas for β_o and β_1 and other important formulas of use in regression analysis are:

$$\beta_1 = \frac{\Sigma(X_i - \bar{X})(Y_i - \bar{Y})}{\Sigma(X_i - \bar{X})^2};$$

$$\beta_o = \bar{Y} - \beta_1 \bar{X};$$

$$TSS = \Sigma(Y_i - \bar{Y})^2;$$

$$ESS = \Sigma(Y_i - \hat{Y}_i)^2;$$

$$RSS = \Sigma(\hat{Y}_i - \bar{Y})^2;$$

$$\hat{Y}_i = \beta_o + \beta_1 X_i;$$

$$R^2 = RSS/TSS.$$

In these expressions,

- X_i = an observed value of the independent variable;
- $\bar{X}$ = average of all observed values of the independent

variable;

- Y_i = an observed of the dependent variable which is associated with the observed value, X_i, of the independent variable;
- $\bar{Y}$ = average of all observed values of the dependent variable;
- $\hat{Y}_i$ = predicted value of the dependent variable associated with the observed value, X_i;
- TSS = total sum of squared deviations of the dependent variable from its mean value;
- ESS = error sum of squares, or unexplained sum of squared deviations of the observed values of the dependent variable from the corresponding regression estimates;
- RSS = regression sum of squares, or sum of squared deviations of the regression estimates from the mean of the observed values of the dependent variable;
- R^2 = coefficient of determination. R^2 indicates the explanatory power of the regression model.

2. Range of Accuracy Given by a Regression Formula

A common error that sometimes is made when using a regression formula is assuming that the model is accurate outside the range of the independent variable used for the model creation. An example of this is the value given by β_o. The fact that β_o does not go through the origin does not mean that the model is necessarily incorrect. This value is simply a place marker indicating a starting point for the regression line. Unless the independent variable had an observed value of zero, one should not generalize beyond the range of the data by claiming that the Y intercept is an expected value of the dependent variable when the independent

be a fixed or start-up cost causing the value going from zero to a very large value for the first unit of output.

Similar problems may arise if an attempt is made to use a model to estimate the value of the dependent variable for values of the independent variable greater than those used to derive the regression formula.

3. Specific Assumptions

The specific regression assumptions made for the analyses in Chapter III include:

1. No specification error.
   a. The relationship between units and dollars is linear within each cost center.
   b. No relevant independent variables have been excluded.

2. Assume the measurement error has a mean of zero.
   a. The independent variable is measured without error.
   b. The dependent variable is assumed to have error (some of which may be measurement error) associated with ESS.

3. The following assumptions concern the error term, ε_i:
   a. for each observation, the expected value of the error term is zero ($E(\varepsilon_i) = 0$);
   b. the variance of the error term is the same for all observations;
   c. the error terms are not correlated;
   d. the error terms, ε_i, are normally distributed. [Ref 3: p. 26]

III ANALYSIS OF DATA

The least squares method was used to develop the coefficients in the regression equation for each cost center having sufficient data to analyze. Each resulting regression function and corresponding set of residuals were examined to determine how successfully the least squares line fit the data.

A. Coefficient of Determination

The first evaluation was done to see how well the regression function accounts for variations in the dependent variable. This was accomplished by examining the values of the coefficient of determination, R^2. Its value represents the proportion of variation in the dependent variable explained by the regression function. The possible values of the measure range from 0 to 1. At the one extreme, when $R^2 = 1$, the regression function completely accounts for the dependent variable's variation. This implies that all observation pairs (X_i, Y_i) fall on the regression line. An extremely low R^2, one near 0, indicates that the dependent variable has virtually no linear dependency on the independent variable [Ref 3: pp. 21-24].

> Simple interpretations of R^2 make the coefficient of determination one of the most important measures of the adequacy of prediction equations....A large value of R^2 does not necessarily guarantee accurate prediction, but it

should be required before undue claims are made about the fitted model. [Ref 4: p. 83]

B. Hypothesis Testing

After examining the R^2 for each equation the next evaluation was to test whether the regression line actually has a slope other than zero (as represented by β_1). This is best accomplished through a procedure called hypothesis testing.

Hypothesis testing involves setting up a hypothesis that allows for making a decision from two possible outcomes. The desired hypothesis, by custom, is usually called the null hypothesis, and is denoted by H_0. Typically, it states that a certain parameter of a probability distribution has a specified value. The alternative hypothesis, denoted as H_a, usually states that the parameter does not have that value; and may specify what its alternative value is. The objective of hypothesis testing is to either reject the claim of the null hypothesis and therefore accept the alternative hypothesis; or not to reject the claim of the null hypothesis. The null hypothesis will not be rejected in favor of the alternative claim unless sample evidence contradicts it and provides strong support for the alternative assertion.

The testing of hypotheses is accomplished through a test procedure. This procedure is a rule, based on sample data, for deciding whether or not to reject the null hypothesis.

A test procedure is specified by:

- a test statistic, which is a function of the sample data on which the decision to reject H_0 or not reject H_0 is to be based; and
- a rejection region, which is the set of all test statistic values for which H_0 will be rejected. [Ref 5: p. 279]

The null hypothesis will then be rejected if and only if the observed or computed test statistic value falls in the rejection region.

The hypotheses of concern for the regression models are stated as:

- H_0: $\beta_1 = 0$ (the slope of the regression equation is zero); and
- H_a: $\beta_1 \neq 0$ (the slope of the regression equation is something other than zero).

If H_0 is true, it implies that the independent variable has no influence on the dependent variable (at least not through a linear relationship). Rejection of H_0 in favor of H_a leads to the conclusion that the independent variable significantly influences the dependent variable in a linear fashion. The rejection of H_0 means that a trend has been detected. However, nothing is implied concerning the quality of fit of the regression line. That is what R^2 is used for.

The test statistic that is used for testing whether $\beta_1 = 0$ is the t value. The t value is computed by dividing the estimated β_1 by the standard error of the estimate of the coefficient. This standard error is an estimate of the standard deviation of the slope estimate (β_1).

The rejection region for this test comes from the t distribution table. To test H_0: $\beta_1 = 0$ against H_a: $\beta_1 \neq 0$ a two-tailed test is used. This test involves a rejection region on both the left and right ends (tails) of the distribution. A rejection region containing 5 percent of the total probability distribution is typically used. With the two-tailed test this means that 50 percent of the rejection region lies in either tail of the distribution. Appendix C is an abridged t table, covering only the rejection region for a 5% significance level and for the degrees of freedom for the data analyzed. Degrees of freedom is defined as the number of observations minus the number of estimated parameters (in this case β_1) minus one. Thus, for the regression functions analyzed in this thesis the degrees of freedom is the number of observations minus two.

For this test, the null hypothesis can only be rejected if and only if the computed test statistic value falls in the rejection region. Therefore, if the absolute value of the test statistic is greater than the value from the t table the decision is to reject H_0: $\beta_1 = 0$, and accept the H_a: $\beta_1 \neq 0$ at the five percent significance level. The analysis as done was only concerned with a significance level of five percent. The t value can be converted into its specific significance level with the use of formulas, tables or computer software programs. By doing this the specific significance level provided by the regression model results can be derived.

C. Results of Analysis

Table 1 presents a compilation of the results of the regression analyses of the data from Appendix B, listed in descending order of R^2 values. The first two columns specify the cost center and the activity to which that particular cost center belongs. The regression function shows the coefficients determined by the least squares method. The column titled d.f. indicates the degrees of freedom for the particular regression function. The t value column is the calculated test statistic to be used for testing the null hypothesis of $\beta_1 = 0$.

TABLE 1. SUMMARY OF THE REGRESSION ANALYSES

Cost Center	R^2	Regression Function	d.f.	t Value
DB NORVA	0.97979	Y = -9.85092 + 0.001777 X	19	30.352
FR GLAKE	0.88237	Y = -64.46500 + 0.000981 X	19	11.938
SM PEN	0.85966	Y = 2.64187 + 0.000046 X	19	10.788
DB GLAKE	0.76510	Y = 19.63011 + 0.000730 X	19	7.867
FO PEN	0.72567	Y = -38.00501 + 0.085935 X	19	7.089
DB CHASN	0.63262	Y = -8.21305 + 0.002148 X	19	5.720
IC NPFC	0.61254	Y = -14.15843 + 0.011963 X	18	5.334
DB SPCC	0.53132	Y = 4.58633 + 0.002145 X	19	4.641
PD NPFC	0.49759	Y = 46.01953 + 0.002085 X	18	4.222
LP ASO	0.45077	Y = 732.81220 - 0.054078 X	18	-3.844
SP WASH	0.44671	Y = -39.34843 + 0.042549 X	19	3.917
CP PUGET	0.44468	Y = 36.82060 - 0.003538 X	19	-3.901
PP PEN	0.43824	Y = 70.50930 - 0.010303 X	18	-3.747
DB NPFC	0.39328	Y = 3.51276 + 0.001633 X	18	3.416
SP OAK	0.37349	Y = 187.13260 - 0.018918 X	19	-3.366
SP PUGET	0.35975	Y = 101.70830 + 0.006266 X	19	3.267
CP NRFC	0.32812	Y = 53.75281 + 0.001057 X	19	3.046
SP SPCC	0.32291	Y = 202.91920 + 0.015701 X	19	3.010
PP PUGET	0.30541	Y = 16.47531 + 0.007620 X	19	2.890
FR NPFC	0.30222	Y = 21.43441 + 0.000609 X	19	2.869
SM NORVA	0.29768	Y = 9.08758 + 0.000034 X	19	2.838
CP NPFC	0.29379	Y = 14.64710 + 0.001391 X	18	2.736

Cost Center	R^2	Regression Function	d.f.	t Value
MA SAN	0.27416	Y = 24.21872 + 0.000066 X	19	2.679
PD PEN	0.25587	Y = 302.34000 + 0.005016 X	19	2.556
MA NPFC	0.22699	Y = 12.76058 + 0.000076 X	19	2.362
LP WASH	0.22241	Y = 142.24060 + 0.096538 X	18	2.269
PD PUGET	0.19861	Y = 398.05510 + 0.005103 X	19	2.1[illegible]0
SM JAX	0.19691	Y = 24.71584 + 0.000028 X	19	2.158
MA ASO	0.19557	Y = 148.68390 + 0.000120 X	19	2.149
AH SAN	0.17641	Y = 54.08285 + 0.003735 X	19	2.017
SM SAN	0.15983	Y = 321.56900 - 0.000214 X	18	-1.850
FO PUGET	0.15559	Y = 47.28042 + 0.012956 X	19	1.873
LP PUGET	0.14982	Y = 102.59450 + 0.054145 X	19	1.830
SP SAN	0.14558	Y = 147.56970 + 0.004101 X	19	1.799
DB OAK	0.11446	Y = 140.39510 + 0.000345 X	19	1.567
LP NAP	0.11375	Y = 146.63140 + 0.092271 X	19	1.562
SP JAX	0.10953	Y = 59.26986 + 0.008961 X	19	1.529
LP PEN	0.10908	Y = 18.25461 + 0.067125 X	18	1.485
PD CHASN	0.10789	Y = 668.20060 + 0.004756 X	19	1.516
AT NMTO	0.10775	Y = 72.78447 + 0.000639 X	19	1.515
CP GLAKE	0.10688	Y = 40.30290 + 0.000480 X	19	1.508
FR CHASN	0.10151	Y = 69.33126 + 0.000234 X	19	1.465
CP NORVA	0.09547	Y = 137.23550 - 0.001045 X	18	-1.378
SP PEN	0.09505	Y = -6.12222 + 0.018087 X	19	1.413
CP CHASN	0.09343	Y = 19.61875 + 0.000812 X	19	1.399
FO NORVA	0.08967	Y = 118.02050 + 0.012195 X	19	1.368
SP CHASN	0.08566	Y = 180.14910 + 0.002609 X	19	1.334
CP SAN	0.08033	Y = 63.93225 + 0.000161 X	19	1.288
LP PEARL	0.07370	Y = 79.36882 + 0.033742 X	19	1.230
IC ASO	0.07020	Y = -15639.99 + 0.417973 X	19	1.198
DB ASO	0.06928	Y = 9.67567 + 0.000950 X	19	1.189
FO SAN	0.06833	Y = 47.36470 + 0.001883 X	19	1.180
PR SPCC	0.06311	Y = 100.33780 - 0.000134 X	19	-1.131
PP PEARL	0.06037	Y = 104.22270 + 0.004491 X	19	1.105
MA OAK	0.05990	Y = 45.52344 + 0.000153 X	19	1.100
FO CHASN	0.05907	Y = 22.16655 + 0.013761 X	19	1.092
CP SPCC	0.05634	Y = 34.55485 - 0.000514 X	19	-1.065
PP CHASN	0.04565	Y = 39.81456 + 0.001440 X	19	0.953
MA SPCC	0.04485	Y = 284.93920 + 0.000080 X	19	0.945
SM PEARL	0.04361	Y = 83.09614 - 0.000168 X	17	-0.880
AH NORVA	0.04354	Y = -18.80049 + 0.007579 X	17	0.880
LP PHIL	0.04314	Y = 267.55770 + 0.033334 X	19	0.925
PP SAN	0.04028	Y = 82.43392 + 0.002381 X	19	0.893
IF ASO	0.03753	Y = 513.76390 - 0.006060 X	18	-0.838
FR NRFC	0.03377	Y = 477.59830 - 0.000269 X	19	-0.815
IC SPCC	0.03093	Y = -5482.475 + 0.106106 X	19	0.779
FO OAK	0.02994	Y = 51.33398 - 0.001206 X	19	-0.766
PP NORVA	0.02758	Y = 191.16260 - 0.011251 X	16	-0.674
IF SPCC	0.02753	Y = 834.80770 + 0.000616 X	19	0.733
LP JAX	0.02452	Y = 69.81556 + 0.019422 X	19	0.691

Cost Center	R^2	Regression Function	d.f.	t Value
LP NORVA	0.02171	Y = 198.58670 + 0.033110 X	19	0.649
SM OAK	0.02149	Y = 13.27740 + 0.000051 X	19	0.646
LP SPCC	0.02146	Y = 598.77320 + 0.023471 X	19	0.646
AP ASO	0.01962	Y = 219.18700 - 0.084564 X	19	-0.617
SM PUGET	0.01860	Y = 41.90538 - 0.000211 X	18	-0.584
CP OAK	0.01810	Y = 64.36417 + 0.000232 X	19	0.592
MA JAX	0.01560	Y = 23.59558 - 0.000039 X	19	-0.549
SP NORVA	0.01506	Y = 204.22900 + 0.002930 X	19	0.539
CD GLAKE	0.01485	Y = 30.89670 + 0.000125 X	14	0.459
MA NORVA	0.01301	Y = 56.60377 + 0.000036 X	19	0.500
MA CHASN	0.01235	Y = 30.62419 - 0.000030 X	19	-0.487
MA PUGET	0.01007	Y = 20.02321 + 0.000006 X	19	0.440
DB SAN	0.01002	Y = 9.72129 + 0.000058 X	19	0.439
FO PEARL	0.00755	Y = 156.76960 - 0.002574 X	19	-0.380
DB NRFC	0.00582	Y = 236.63520 + 0.000040 X	19	0.333
SP ASO	0.00464	Y = 96.96858 + 0.004063 X	18	0.290
SP NAP	0.00403	Y = 31.07440 - 0.000919 X	19	-0.277
PD SAN	0.00332	Y = 1535.9540 + 0.000842 X	19	0.251
PD JAX	0.00155	Y = 674.15160 + 0.001050 X	19	0.172
PP JAX	0.00129	Y = 63.40507 + 0.001414 X	19	0.157
MA PEARL	0.00117	Y = 25.14420 + 0.000010 X	19	0.149
SP PEARL	0.00083	Y = 74.31902 - 0.000210 X	19	-0.125
AP SPCC	0.00059	Y = 205.04920 + 0.000486 X	19	0.105
PD PEARL	0.00044	Y = 512.68220 + 0.000274 X	19	0.092
SM CHASN	0.00035	Y = 22.11043 + 0.000011 X	18	0.079
FO JAX	0.00021	Y = 78.94329 + 0.000681 X	19	0.062
LP OAK	0.00007	Y = 46.98493 + 0.001743 X	18	0.035
LP CHASN	0.00007	Y = 197.03040 + 0.000789 X	19	0.035
LP SDCC	0.00004	Y = 365.87070 + 0.000726 X	18	0.027
SP PHIL	0.00000	Y = 17.39558 + 0.000033 X	19	0.008
FR OAK	0.00000	Y = 169.95310 + 0.000001 X	19	0.005
PD NORVA	0.00000	Y = 3607.5190 - 0.000061 X	18	-0.004
PP OAK	0.00000	Y = 109.11520 - 0.000004 X	19	-0.001

As Table 1 shows, only eight of the 103 cost centers have a R^2 that is greater than 0.5. The lack of a good fit for most of the remaining 95 cost centers is reinforced through the analysis of the slope using the hypothesis test described above. That test indicates that only 29 cost centers in Table 1 have a slope not zero at 5 percent significance. Table 2 lists these 29 cost centers by activity.

TABLE 2. COST CENTERS FROM TABLE 1 HAVING $\beta_1 \neq 0$

Activity	Cost centers					
ASO	LP	MA				
CHASN	DB					
GLAKE	DB	FR				
JAX	SM					
NORVA	DB	SM				
NPFC	CP	DB	FR	IC	MA	PD
NRFC	CP					
OAK	SP					
PEN	FO	PD	PP	SM		
PUGET	CP	PD	PP	SP		
SAN	MA					
SPCC	DB	SP				
WASH	LP	SP				

The activity labeled NPFC (Naval Publications and Forms Center) has six cost centers, all of which have significant regression results. This is quite an accomplishment considering that the six cost centers represent the entire set of its cost centers. All cost centers of the activity labeled WASH (Naval Regional Finance Center Washington D.C) also have significant regressors.

IV ADDITIONAL ANALYSIS

Since the regression formulas in Table 1 appear to be of very little help to NAVSUP in connecting budgets and outputs it was decided to look at the possibility of seasonal variations.

A. Seasonal Correction

When using data that is reported in a sequential time pattern, a seasonal variation in demand or usage is not uncommon. These seasonal usage patterns are usually identified through a typical recurring period of high and low usage. Since the data supplied meets the requirements to be a time series it was decided to attempt the regression analysis with deseasonalized data.

The deseasonalization of the data was accomplished by using the fiscal year 90 data for determining the seasonal indexes, then running the regression analysis on the deseasonalized fiscal year 91 data. The computations of the seasonal indexes were accomplished using the following procedure: for each cost center the work units from the months of October 1989 through September 1990 were averaged. Each monthly work unit was then divided by this average value. The result of this division is the monthly seasonal index. Each month's units and dollars for fiscal year 91 were then divided

by the corresponding monthly index figure. The results are deseasonalized values of units and dollars [Ref 6: pp. 60-62] Table 3 illustrates the steps of the process for Naval Supply Center Charleston's CP cost center.

TABLE 3. CALCULATION OF SEASONALITY INDICES AND DESEASONALIZED DATA

Cost center CP

CHASN Month	Units	Dollars	Monthly Seasonal Index (Units/9360.75)
OCT89	9144	33	0.97684480
NOV89	8702	24	0.929626s36
DEC89	13073	23	1.39657612
JAN90	8788	23	0.93881366
FEB90	8587	31	0.91734102
MAR90	8539	24	0.91221323
APR90	8510	34	0.90911518
MAY90	8520	22	0.91018347
JUN90	12783	23	1.36559570
JUL90	8555	21	0.91392249
AUG90	8562	21	0.91467029
SEP90	8566	22	0.91509761
Average Units	9360.75		

Month	Units	Dollars	Deseasonalized Units (Units/Index)	Deseasonalized Dollars (Dollars/Index)
OCT90	8528	35	8730.1483	35.8296
NOV90	8570	21	9218.7575	22.5897
DEC90	12699	19	9092.9522	13.6047
JAN91	8452	38	9002.8515	40.4766
FEB91	8523	24	9290.9831	26.1626
MAR91	8550	29	9372.8086	31.7908
APR91	8430	33	9272.7524	36.2990
MAY91	10635	35	11684.4573	38.4538
JUN91	19023	44	13930.1844	32.2204

B. Analysis of Seasonal Data

The fiscal year 91 deseasonalized data was then used for a regression analysis which is summarized below in Table 4. The table is arranged identically to that of Table 1.

Appendix D contains the seasonality indices and regression analyses for the first 50 cost centers listed in Table 4. The other cost centers showed virtually no seasonality effect, as their indices for all months were very close to 1.0 and therefore have very little affect on the data.

TABLE 4. SUMMARY OF THE REGRESSION ANALYSIS OF DESEASONALIZED DATA.

Cost Center		R^2	Regression Function				d.f.	t Value
FR	NPFC	0.98032	Y =	-5.0979800	+ 0.000857100	X	6	17.289
LP	ASO	0.96709	Y =	-475.7770000	+ 0.528902250	X	6	13.278
LP	PEARL	0.96523	Y =	43.8160951	+ 0.526302708	X	7	13.940
CP	NRFC	0.94962	Y =	-5.2344797	+ 0.001915972	X	7	11.487
IC	NPFC	0.91885	Y =	-20.1099000	+ 0.012174630	X	6	8.242
LP	OAK	0.91302	Y =	8.3267767	+ 0.854514349	X	6	7.936
SP	OAK	0.87313	Y =	24.4882537	+ 0.020690362	X	6	6.426
LP	NAP	0.85402	Y =	75.1737836	+ 0.359555343	X	7	6.399
FO	SAN	0.85286	Y =	8.7294060	+ 0.013686301	X	7	6.370
FR	GLAKE	0.84938	Y =	-14.9398537	+ 0.000636071	X	6	5.817
SP	PEN	0.84630	Y =	18.5141855	+ 0.009767693	X	6	5.748
PD	NPFC	0.77613	Y =	52.7801500	+ 0.002211850	X	6	4.561
MA	NPFC	0.74597	Y =	4.8292550	+ 0.000672650	X	6	4.197
FR	CHASN	0.73941	Y =	10.9007461	+ 0.000663623	X	7	4.457
LP	WASH	0.72933	Y =	58.1427937	+ 0.258685361	X	6	4.021
CP	NPFC	0.70860	Y =	-9.5888600	+ 0.002858470	X	6	3.820
LP	PHIL	0.69556	Y =	115.8123834	+ 0.159174121	X	7	3.999
SP	NAP	0.64435	Y =	7.7423997	+ 0.015428637	X	7	3.561
DB	GLAKE	0.63460	Y =	-5.0525175	+ 0.000971976	X	6	3.228
LP	PEN	0.61691	Y =	-5.2193308	+ 0.702823883	X	6	3.108
SM	JAX	0.59939	Y =	-29.3974850	+ 0.000078411	X	7	3.236
SM	OAK	0.58684	Y =	11.4567290	+ 0.000062616	X	7	3.153
FR	OAK	0.57809	Y =	105.5962277	+ 0.000674148	X	7	3.097
AP	ASO	0.56978	Y =	99.7871400	+ 0.486767190	X	7	3.045
SP	NORVA	0.54787	Y =	-395.3611260	+ 0.040617058	X	7	2.912
PD	CHASN	0.53708	Y =	-257.2284528	+ 0.014736880	X	7	2.850
MA	JAX	0.48376	Y =	4.7162941	+ 0.000207093	X	7	2.561
CD	GLAKE	0.47905	Y =	-22.7933531	+ 0.001480610	X	2	1.356
IC	SPCC	0.47748	Y =	-37245.983874	+ 0.599677727	X	7	2.529
DB	ASO	0.47498	Y =	4.7048620	+ 0.001439860	X	7	2.517
DB	NPFC	0.45781	Y =	2.3158470	+ 0.001505190	X	6	2.251
MA	OAK	0.44083	Y =	18.7171915	+ 0.000806580	X	7	2.349
AH	SAN	0.42472	Y =	-54.3827533	+ 0.009029515	X	7	2.273
AP	SPCC	0.42276	Y =	-141.8507935	+ 0.022951935	X	7	2.264

Cost Center		R^2	Regression Function			d.f.	t Value
SM	NORVA	0.41271	Y = -64.5947597	+ 0.000075983	X	6	2.053
MA	CHASN	0.40864	Y = 13.1384559	+ 0.000139177	X	7	2.199
IF	SPCC	0.39874	Y = 505.1451676	+ 0.005782587	X	7	2.155
PP	PUGET	0.37817	Y = -5.7086389	+ 0.022850076	X	7	2.063
PD	PEN	0.37024	Y = 310.3838897	+ 0.004956185	X	6	1.878
PP	JAX	0.36223	Y = 230.6541811	- 0.055813490	X	7	-1.994
FO	NORVA	0.33407	Y = -20.2606812	+ 0.039631086	X	6	1.735
DB	OAK	0.33232	Y = -5.1443071	+ 0.001598058	X	7	1.867
PD	PUGET	0.32054	Y = 373.4145457	+ 0.006006246	X	7	1.817
DB	NORVA	0.26672	Y = -3.6518182	+ 0.001224470	X	6	1.477
PP	PEN	0.26498	Y = 21.0235568	+ 0.012311484	X	6	1.471
AH	NORVA	0.25777	Y = -479.9478563	+ 0.022162895	X	6	1.444
PP	CHASN	0.25549	Y = 22.6113788	+ 0.009455151	X	7	1.550
FO	JAX	0.25209	Y = 218.2955895	- 0.053738762	X	7	-1.536
SP	JAX	0.25043	Y = 46.6518093	+ 0.011038105	X	7	1.529
PD	NORVA	0.24093	Y = -8794.0408675	+ 0.049611436	X	6	1.380
LP	NORVA	0.23597	Y = 81.5107619	+ 0.243603663	X	7	1.470
SP	CHASN	0.23522	Y = 110.2467071	+ 0.008744698	X	7	1.467
SP	PUGET	0.23351	Y = 272.7878084	- 0.006921826	X	7	-1.460
IC	ASO	0.22168	Y = -33251.900000	+ 0.847284740	X	7	1.412
SM	PEN	0.22095	Y = 16.1102218	+ 0.000022469	X	6	1.304
DB	NRFC	0.22072	Y = 364.7596121	- 0.000833544	X	7	-1.408
FO	OAK	0.20390	Y = 25.6533187	+ 0.014092711	X	7	1.339
CP	SAN	0.18081	Y = 48.7360454	+ 0.000527993	X	7	1.243
MA	SAN	0.17564	Y = 20.1711748	+ 0.000080464	X	7	1.221
MA	PUGET	0.17413	Y = 8.8257319	+ 0.000124119	X	7	1.215
AT	NMTO	0.16751	Y = 72.4320075	+ 0.000772737	X	7	1.187
LP	JAX	0.16409	Y = 64.3021489	+ 0.079559477	X	6	1.085
MA	PEARL	0.16174	Y = 11.2801063	+ 0.000196256	X	7	1.162
FO	PUGET	0.15810	Y = 42.0235036	+ 0.027876931	X	7	1.147
DB	CHASN	0.13975	Y = 40.0973241	+ 0.001446190	X	7	1.066
LP	SPCC	0.12462	Y = 580.8908676	+ 0.134743475	X	7	0.998
SM	PEARL	0.12372	Y = 145.9174651	- 0.000348609	X	7	-0.994
LP	CHASN	0.11321	Y = 202.1481860	+ 0.136230929	X	7	0.945
FO	PEN	0.11156	Y = 11.3259517	+ 0.010116732	X	6	0.868
PD	JAX	0.10976	Y = 1180.7702367	- 0.008334354	X	7	-0.929
PP	SAN	0.09257	Y = 137.5606901	- 0.006181586	X	7	-0.845
SP	SPCC	0.07575	Y = 185.5244926	+ 0.023524125	X	7	0.757
LP	PUGET	0.06909	Y = 118.1350711	+ 0.052029712	X	7	0.721
SM	PUGET	0.06109	Y = 59.4564148	- 0.000329804	X	6	-0.625
PP	OAK	0.05936	Y = 127.7200616	- 0.004038992	X	7	-0.665
FR	NRFC	0.05611	Y = 70.4162497	+ 0.000625695	X	7	0.645
CP	PUGET	0.04475	Y = 15.5884789	+ 0.000580288	X	6	0.530
IF	ASO	0.04344	Y = 836.5289000	+ 0.007016400	X	6	0.522
PR	SPCC	0.04329	Y = 85.3420524	+ 0.000123322	X	7	0.563
CP	CHASN	0.03786	Y = 21.1230242	+ 0.000974599	X	7	0.525
CP	SPCC	0.03593	Y = 36.1666759	- 0.000440019	X	7	-0.511
SP	PEARL	0.03301	Y = 71.1719121	+ 0.001383949	X	7	0.489

Cost Center		R^2	Regression Function			d.f.	t Value
PP	NORVA	0.03204	Y = 328.9599497	-	0.031877067 X	5	-0.407
MA	NORVA	0.02990	Y = -5.4440850	+	0.000212963 X	6	0.430
SM	CHASN	0.02895	Y = 64.5238850	-	0.000069651 X	6	-0.423
SP	ASO	0.02464	Y = 90.4041100	+	0.003270740 X	6	0.389
PD	PEARL	0.02210	Y = 380.7764288	+	0.003251381 X	7	0.398
PD	SAN	0.02205	Y = 1311.2660156	+	0.002473692 X	7	0.397
SM	SAN	0.01365	Y = 251.2818222	-	0.000110794 X	6	-0.288
MA	ASO	0.01119	Y = 231.9894000	+	0.000017660 X	7	0.281
DB	SPCC	0.00859	Y = 11.7278372	+	0.000623305 X	7	0.246
DB	SAN	0.00780	Y = 11.4834057	-	0.000172800 X	7	-0.235
CP	OAK	0.00330	Y = 60.5095053	+	0.000463069 X	7	0.152
CP	GLAKE	0.00229	Y = 54.7104703	+	0.000039238 X	6	0.117
SP	SAN	0.00210	Y = 193.5570276	+	0.000522140 X	7	0.121
SP	WASH	0.00190	Y = 36.7897124	+	0.000899387 X	6	0.107
CP	NORVA	0.00148	Y = 70.6843989	+	0.000339422 X	6	0.094
PP	PEARL	0.00092	Y = 128.2463738	+	0.001523531 X	7	0.080
MA	SPCC	0.00051	Y = 343.3797721	+	0.000018014 X	7	0.060
SP	PHIL	0.00005	Y = 14.5744206	+	0.000076326 X	7	0.018
FO	CHASN	0.00002	Y = 32.8978236	+	0.000237978 X	7	0.012
FO	PEARL	0.00001	Y = 153.9273780	-	0.000192951 X	7	-0.008
LP	SDCC	0.00000	Y = 418.2272986	+	0.000268771 X	6	0.001

As Table 4 shows, the number of cost centers with a R^2 greater than 0.5 has increased from the eight in Table 1 to 26 in Table 4. This appears to be good news. There is further good news. With only a partial year of data available to compute the regression function and the degrees of freedom for the hypothesis test for the slope being reduced as a consequence, 29 cost centers can still reject the hypothesis that the slope is zero. These 29 cost centers are listed in Table 5 by activity.

TABLE 5. COST CENTERS FROM TABLE 4 HAVING $\beta_1 \neq 0$

Activity	Cost center				
ASO	AP	DB	LP		
CHASN	FR	PD			
GLAKE	DB	FR			
JAX	MA	SM			
NAP	LP	SP			
NORVA	SP				
NPFC	CP	FR	IC	PD	MA
NRFC	CP				
OAK	FR	LP	SP	SM	
PEARL	LP				
PEN	LP	SP			
PHIL	LP				
SAN	FO				
SPCC	IC				
WASH	LP				

Table 5, like that of Table 2, shows that the activity labeled NPFC is still the most "efficient" with regards to regression functions.

C. Regression analyses on the last nine months of data ignoring seasonality

Since the regression analyses in the preceding section used only the fiscal year 91 data, there was the possibility that the raw unseasonalized data from fiscal year 91 would also result in a significant improvement from the analysis of the entire 21 months. It could have been possible that the cost centers could, after one year of reporting the required information, have improved their tracking of outputs and the costs required to create them. The regression analyses of 50 of the cost centers are presented in Appendix D along with the

associated seasonalized analyses. Just using the fiscal year 91 data did increase the number of R^2 values greater than 0.5 from eight in Table 1 to twelve, but only ten of these cost centers were able to reject the null hypothesis that the slope coefficient β_1 is zero.

D. Implications of Deseasonalization of Data

Comparing Tables 1 and 5 suggests that some of the cost centers benefit more from the deseasonalization than others. For example, the SP, LP, and FR cost centers appear to benefit from considering seasonality effects. Cost center DB is better without the deseasonalizaton. Those cost centers whose seasonality indices all hover close to 1.0 will, of course, show little benefits from considering seasonality as it was computed in this thesis.

E. Reseasonalization of Data

To make correct use of the regression functions for deseasonalized data the following procedures must be followed.

1. The projected work units must be divided by the appropriate monthly seasonal index.

2. The forecasted deseasonalized costs associated with these work units are obtained from the appropriate cost center regression function.

3. The resulting costs from step 2 must then be multiplied by the monthly seasonal index to obtain the estimated costs of producing the projected units used in step 1.

The seasonality indices should also be updated after each subsequent year's historical data has been added to the data

base. The update is accomplished by the adding each month's output value to the previous year's values to get monthly averages and an annual average of the number of complete past years.

There are several ways to compute seasonal indexes with more than two years of data. The type chosen should be one that the user is comfortable with. Most management science text books include at least one method of computing seasonal indices. (See, for example, Reference 6.)

F. Potential Problems

Potential serious problems from using the results of these analyses are possible. The sample size is rather small for gaining much benefits from regression analysis. In addition, seasonality indices generated with only one years's worth of data are suspect. More months worth of data are necessary to feel confident about regression analysis results. How much data is necessary depends, of course, on several things. One is the urgency to get some sort of forecast for the dollars needed. Another is the sense of importance that the cost center attaches to keeping accurate records of outputs and expenditures associated with them. Both should be motivated by shrinking of future budgets. Finally, the model used in the analyses above was a simple linear relationship between outputs and dollars. That may, in fact, be an incorrect assumption. Higher order models may be much more appropriate.

These other models since they are not linear were not investigated or considered. An understanding of what each cost center does, and how the work units and outputs are computed will also be necessary to refine the model.

V SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. Summary

This thesis concerned itself with regression analysis of data furnished by NAVSUP. The analyses of the data resulted in very limited success. Without any manipulation of the data, only eight of the 103 cost centers having sufficient data to be analyzed exhibited results that, at the 5 percent significance level, showed the dollars expended to be linearly related to the work units produced.

Applying seasonal indices, while producing improved results in the sense of R^2, still failed to produce any larger number of cost centers able to reject the hypothesis that the slope is zero. These larger R^2 values do suggest that consideration of seasonality effects has merits. When a larger number of months are available one may be able to determine which cost centers are in fact really subject to the effects of seasonalized demands for their outputs.

There was one activity (Naval Publications and Forms Center) whose data consistently met the requirements set up in this thesis for significant analysis. This activity's reporting methods and quality control of the reporting methods appear to be better than the other activities. Of course their requirements may also be less demanding to fulfill than

the other activities. An examination of each cost centers' unit output is necessary to make a better judgement on this matter.

B. Conclusions

It is apparent from the analyses that a simple linear regression model does not predict with much confidence the amount of money it will cost to produce a certain number of units of output. As Tables 1 and 4 show, the R^2 values are less than 0.5 for almost 75 percent of the cost centers. Those cost centers with an R^2 of less than 0.5 have less than 50 percent of the dollars spent explained by the units of output with respect to the least squares model.

The application of seasonality indices to the cost center data does appear to contribute significantly to an increase in the number of cost centers having a higher R^2. However, only the last nine months of data can then be used.

C. Recommendations

1. It is recommended that data continue to be collected and regression analyses applied. Hopefully, as the amount of data grows, a linear or nonlinear function should start to become evident for forecasting the dollars needed to create the demanded outputs.

2. It should come as no surprise that some of the cost centers considered are affected by the influence of seasonal

changes in their demand pattern. These cost centers should be further evaluated to determine the extent of this influence.

3. It is recommended that the cost centers pay closer attention to record keeping, both of outputs and the expenditures that create them.

4. Since there is yet no good simple linear fit for many of the cost centers, a search should be conducted for the possibility of either a hidden regressor that is keeping the units from accurately predicting dollars spent or a function that better represents the relationship between output and input.

5. The one activity for which the linear regression seems to give good results from both the unseasonalized and the seasonalized analyses is Naval Publications and Forms Center. All of its cost centers appear to have sufficient data available to provide a reasonably accurate linear regression forecasting function. This suggests that the activity has developed the necessary skills to report accurately its units and costs. This possibility should be investigated and, if found to be true, the activity should be contacted and asked to share their skills with the other activities in NAVSUP.

6. A final thought concerns the Department of Defense guidance. This guidance is quickly changing and becoming more demanding regarding the use of resourced units. This new emphasis will continue to create considerable turbulence throughout the Department of Defense. NAVSUP should review

their PURS system to determine if the output units and costs calculations currently being used are really valid.

LIST OF REFERENCES

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APPENDIX A

This appendix is a glossary for acronyms used in the body. It also lists the activities full names, and the cost centers with a short definition of the measurement of work that constitutes the Units for each cost center as defined by NAVSUPINST 7000.21A.

A. Glossary

Activity: A physical command, that has several cost centers.

ATAC: Advanced Traceability and Control

β_0: Y axis intercept of the regression function.

β_1: Slope of the regression function.

COSAL: Coordinated Shipboard Allowance List.

Cost Center: A part of the activity that has a specific productive unit function associated with it.

DoD: Department of Defense.

ESS: Error sum of squared deviations.

FMSO: Fleet Material Support Office

ICP: Inventory Control Point

M-BARRELS: 42,000 gallons.

NAVSUP: Naval Supply Systems command.

NMTO: Naval Material Transportation Office

NRCC: Naval Regional Contracting Center.

NRFC: Naval Regional Fiance Center.

NSC: Naval Supply Center.

PPR: Planned Program Requirements.

PUR: Productive unit resourcing.

PURS: Productive unit resourcing system.

RSS: Regression sum of squared deviations.

R^2: Coefficient of determination, an indication of the explanatory power of the regression model.

TSS: Total sum of squared deviations.

X: Independent variable in regression formula.

Y: Dependent variable in regression formula.

B. Activities

ASO: Aviation Supply Office

CHASN: NSC Charleston

GLAKE: NRFC Great Lakes

JAX: NSC Jacksonville

NAP: NRCC Naples

NMTO: Navy Material and Transportation Office

NORVA: NSC Norfolk

NPFC: Naval Publicatons and Forms Center

NRCC: Naval Regional Finance Center

OAK: NSC Oakland

PEARL: NSC Pearl Harbor

PEN: NSC Pensacola

PHIL: NRCC Philadelphia

PUGET: NSC Puget Sound

SAN: NSC San Diego

SDCC: NRCC San Diego

SPCC: Ships Parts and Control Center

WASH: NRFC Washington D. C.

C. Cost Center Codes

Code	Name & definition of Units
AH	ATAC Hub; used by NSC Norfolk and San Diego Productive Unit: Line item receipts.
AP	Allowance Products; used by ICP Productive Unit: Allowance documents prepared.
AT	Air Terminal; used by NMTO Productive Unit: Undefined by NAVSUPINST 7000.21A.
CD	Cross Disbursing; used by NRFC Glakes Productive Unit: Undefined by NAVSUPINST 7000.21A.
CO	COSAL Outfitting; used by NSCs Productive Unit: Undefined by NAVSUPINST 7000.21A, unused in analyses due to insufficient data for any cost center.
CP	Civilian Payroll; used by NSC, ICP, NRFC Productive Unit: Graded/ungraded pay accounts.
DB	Disbursing; used by NSC, NRFC Productive Unit: Checks issued, invoices processed.
DP	Data Processing; used by ALL Productive Unit: Review of cost, unused in analyses due to insufficient data for any cost center.
FO	Fuel Ops; used by NSC Productive Unit: M-Barrels pumped/operations.
FR	Fund Resource Accounting; used by NSC, ICP, NRFC Productive Unit: Transactions posted.
FS	Fleet Support; used by FMSO Productive Unit: Undefined by NAVSUPINST 7000.21A, unused in analyses due to insufficient data for any cost center.

Code	Name & definition of Units
GA	General & Administrative; used by ALL Productive Unit: Percent of productive resources, unused in analyses due to insufficient data for any cost center.
IC	Inventory Control; used by ICP Productive Unit: Line items managed.
IF	Provisioning; used by ICP Productive Unit: Line items reviewed.
LP	Large Purchase; used by NSC, ICP, NRCC Productive Unit: Contract action, (weighted) purchase action.
MA	Material Accounting; used by NSC, ICP Productive Unit: Transactions posted.
OF	Outfitting Support; used by NSC Productive Unit: Undefined by NAVSUPINST 7000.21A, unused in analyses due to insufficient data for any cost center.
PD	Physical Distribution; used by NSC Productive Unit: Movement units.
PP	Personal Property; used by NSC Productive Unit: Transactions (weighted).
PR	Program Requirement; used by ICP Productive Unit: PPRs generated.
QT	QEALT; used by ICP Productive Unit: Undefined by NAVSUPINST 7000.21A, unused in analyses due to insufficient data for any cost center.
RP	Maint Real Prop; used by ALL Productive Unit: Undefined by NAVSUPINST 7000.21A, unused in analyses due to insufficient data for any cost center.
SM	SERVMART; used by NSC Productive Unit: Undefined by NAVSUPINST 7000.21A.
SP	Small Purchase; used by NSC, ICP, NRCC Productive Unit: Contract action, (weighted) purchase action.

APPENDIX B

The following is a listing of all the data furnished by NAVSUP. The data is shown in the final format after its conversion for analysis. It is arranged in alphabetical order by activity and cost center. The cost centers that have mostly zeros or -- (representing a blank) for entries were not considered for analysis.

A. AVIATION SUPPLY OFFICE

Cost Center AP

ASO	Units	Dollars
OCT89	207	225
NOV89	70	231
DEC89	111	170
JAN90	352	220
FEB90	326	187
MAR90	177	281
APR90	257	249
MAY90	192	209
JUN90	100	247
JUL90	196	214
AUG90	327	225
SEP90	227	79
OCT90	261	227
NOV90	279	209
DEC90	193	203
JAN91	247	191
FEB91	96	191
MAR91	168	198
APR91	225	211
MAY91	116	193
JUN91	283	70

Cost Center DB

ASO	Units	Dollars
OCT89	3918	17
NOV89	6718	22
DEC89	5764	20
JAN90	6048	24
FEB90	5824	16
MAR90	6306	20
APR90	5926	12
MAY90	8104	16
JUN90	8310	16
JUL90	7440	17
AUG90	7896	15
SEP90	6394	16
OCT90	7690	14
NOV90	6734	23
DEC90	4114	10
JAN91	6208	11
FEB91	4538	7
MAR91	6150	9
APR91	5374	13
MAY91	4330	17
JUN91	5528	11

Cost Center DP

ASO	Units	Dollars
OCT89	--	2114
NOV89	--	781
DEC89	--	594
JAN90	--	598
FEB90	--	661
MAR90	--	688
APR90	--	959
MAY90	--	612
JUN90	--	568
JUL90	--	753
AUG90	--	697
SEP90	--	688
OCT90	0	1799
NOV90	0	1094
DEC90	0	617
JAN91	0	716
FEB91	0	833
MAR91	0	-78
APR91	0	1233
MAY91	0	615
JUN91	0	-92

Cost Center GA

ASO	Units	Dollars
OCT89	--	4328
NOV89	--	3394
DEC89	--	2513
JAN90	--	3510
FEB90	--	2722
MAR90	--	2512
APR90	--	2586
MAY90	--	2278
JUN90	--	850
JUL90	--	2390
AUG90	--	1669
SEP90	--	2911
OCT90	0	3479
NOV90	0	2258
DEC90	0	2465
JAN91	0	3264
FEB91	0	2239
MAR91	0	1314
APR91	0	3364
MAY91	0	1519
JUN91	0	-162

Cost Center IC

ASO	Units	Dollars
OCT89	42378	2057
NOV89	42239	1749
DEC89	42185	1097
JAN90	42199	1300
FEB90	42126	1576
MAR90	42196	2138
APR90	42268	2052
MAY90	42126	2120
JUN90	42002	1740
JUL90	42096	1812
AUG90	42287	1862
SEP90	42392	2112
OCT90	42428	1865
NOV90	41736	1896
DEC90	41837	1090
JAN91	40588	1392
FEB91	40483	1323
MAR91	40885	1645
APR91	41925	1788
MAY91	42416	1586
JUN91	42278	5624

Cost Center IF

ASO	Units	Dollars
OCT89	2875	367
NOV89	6291	350
DEC89	9414	161
JAN90	10210	132
FEB90	4748	342
MAR90	8922	457
APR90	5424	323
MAY90	6370	417
JUN90	4562	408
JUL90	4926	370
AUG90	6104	381
SEP90	31437	124
OCT90	5679	444
NOV90	2700	715
DEC90	18948	668
JAN91	11749	589
FEB91	17286	625
MAR91	8281	779
APR91	5075	656
MAY91	5942	895
JUN91	6121	-3455

Cost Center LP

ASO	Units	Dollars
OCT89	0	575
NOV89	160	611
DEC89	258	479
JAN90	2024	617
FEB90	3414	645
MAR90	1895	729
APR90	1599	646
MAY90	2270	664
JUN90	2608	595
JUL90	4575	482
AUG90	3468	612
SEP90	10255	16
OCT90	1701	733
NOV90	1403	705
DEC90	616	428
JAN91	2484	750
FEB91	2168	597
MAR91	3142	603
APR91	1983	847
MAY91	2226	683
JUN91	1739	511

Cost Center MA

ASO	Units	Dollars
OCT89	660749	252
NOV89	736268	253
DEC89	506261	129
JAN90	698160	176
FEB90	838786	226
MAR90	793356	281
APR90	740368	259
MAY90	904476	293
JUN90	658112	254
JUL90	764571	251
AUG90	683870	248
SEP90	665850	219
OCT90	852553	261
NOV90	798646	261
DEC90	648259	177
JAN91	900284	232
FEB91	1197812	230
MAR91	775212	275
APR91	977544	282
MAY91	709155	277
JUN91	614362	224

Cost Center QT

ASO	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	283
NOV90	0	308
DEC90	0	201
JAN91	0	232
FEB91	0	248
MAR91	0	303
APR91	0	275
MAY91	0	307
JUN91	0	438

Cost Center RP

ASO	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	249
NOV90	0	215
DEC90	0	124
JAN91	0	221
FEB91	0	109
MAR91	0	169
APR91	0	179
MAY91	0	252
JUN91	0	282

Cost Center SP

ASO	Units	Dollars
OCT89	0	93
NOV89	3032	111
DEC89	1716	67
JAN90	2142	103
FEB90	4022	91
MAR90	3218	136
APR90	3354	123
MAY90	2728	103
JUN90	3335	108
JUL90	2416	56
AUG90	2861	110
SEP90	2633	232
OCT90	2040	106
NOV90	2713	90
DEC90	2110	65
JAN91	3638	82
FEB91	3612	95
MAR91	2481	138
APR91	2972	110
MAY91	2607	121
JUN91	2145	119

B. NSC CHARLESTON

Cost Center CP

CHASN	Units	Dollars
OCT89	9144	33
NOV89	8702	24
DEC89	13073	23
JAN90	8788	23
FEB90	8587	31
MAR90	8539	24
APR90	8510	34
MAY90	8520	22
JUN90	12783	23
JUL90	8555	21
AUG90	8562	21
SEP90	8566	22
OCT90	8528	35
NOV90	8570	21
DEC90	12699	19
JAN91	8452	38
FEB91	8523	24
MAR91	8550	29
APR91	8430	33
MAY91	10635	35
JUN91	19023	44

Cost Center DB

CHASN	Units	Dollars
OCT89	74723	153
NOV89	65426	125
DEC89	60536	124
JAN90	67305	138
FEB90	64563	129
MAR90	71664	147
APR90	66972	131
MAY90	70637	152
JUN90	67970	128
JUL90	66410	141
AUG90	75737	146
SEP90	61365	125
OCT90	73815	156
NOV90	68357	139
DEC90	61011	106
JAN91	65851	140
FEB91	61812	127
MAR91	74936	139
APR91	70118	158
MAY91	69456	146
JUN91	62692	131

Cost Center DP

CHASN	Units	Dollars
OCT89	--	403
NOV89	--	313
DEC89	--	337
JAN90	--	349
FEB90	--	366
MAR90	--	374
APR90	--	530
MAY90	--	373
JUN90	--	614
JUL90	--	298
AUG90	--	382
SEP90	--	354
OCT90	0	517
NOV90	0	333
DEC90	0	310
JAN91	0	392
FEB91	0	342
MAR91	0	414
APR91	0	496
MAY91	0	390
JUN91	0	544

Cost Center FO

CHASN	Units	Dollars
OCT89	1424	36
NOV89	1049	46
DEC89	791	31
JAN90	1019	29
FEB90	1086	35
MAR90	964	38
APR90	907	38
MAY90	1216	51
JUN90	1172	32
JUL90	967	31
AUG90	1031	28
SEP90	1088	58
OCT90	1195	56
NOV90	736	28
DEC90	812	19
JAN91	852	34
FEB91	555	40
MAR91	787	46
APR91	1123	36
MAY91	1014	16
JUN91	1032	24

Cost Center FR

CHASN	Units	Dollars
OCT89	112809	107
NOV89	94303	92
DEC89	151065	78
JAN90	139682	108
FEB90	143820	97
MAR90	149284	109
APR90	155285	106
MAY90	154732	114
JUN90	140541	100
JUL90	127563	104
AUG90	166125	115
SEP90	152337	103
OCT90	146761	122
NOV90	141075	91
DEC90	129199	72
JAN91	126695	102
FEB91	127508	93
MAR91	139408	103
APR91	127178	102
MAY91	139654	112
JUN91	133356	103

Cost Center FS

CHASN	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	57
NOV90	0	55
DEC90	0	62
JAN91	0	73
FEB91	0	74
MAR91	0	82
APR91	0	86
MAY91	0	77
JUN91	0	80

Cost Center GA

CHASN	Units	Dollars
OCT89	--	1295
NOV89	--	383
DEC89	--	892
JAN90	--	1773
FEB90	--	215
MAR90	--	352
APR90	--	1192
MAY90	--	349
JUN90	--	524
JUL90	--	641
AUG90	--	521
SEP90	--	211
OCT90	0	450
NOV90	0	501
DEC90	0	503
JAN91	0	815
FEB91	0	266
MAR91	0	282
APR91	0	598
MAY91	0	290
JUN91	0	650

Cost Center LP

CHASN	Units	Dollars
OCT89	1074	183
NOV89	256	188
DEC89	238	156
JAN90	427	193
FEB90	254	188
MAR90	441	193
APR90	492	193
MAY90	204	199
JUN90	321	194
JUL90	395	179
AUG90	435	220
SEP90	697	154
OCT90	827	247
NOV90	245	217
DEC90	391	186
JAN91	348	204
FEB91	253	205
MAR91	439	227
APR91	428	227
MAY91	337	205
JUN91	828	187

Cost Center MA

CHASN	Units	Dollars
OCT89	104703	17
NOV89	161031	19
DEC89	140892	18
JAN90	156666	24
FEB90	160490	25
MAR90	170137	27
APR90	137904	30
MAY90	135626	26
JUN90	163249	23
JUL90	144968	24
AUG90	127536	26
SEP90	127613	26
OCT90	150571	30
NOV90	148897	27
DEC90	93443	19
JAN91	93075	27
FEB91	124149	24
MAR91	116107	36
APR91	109441	36
MAY91	131852	35
JUN91	127263	39

Cost Center OF

CHASN	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	30
NOV90	0	28
DEC90	0	19
JAN91	0	26
FEB91	0	25
MAR91	0	28
APR91	0	32
MAY91	0	38
JUN91	0	26

Cost Center PD

CHASN	Units	Dollars
OCT89	95769	1164
NOV89	125926	1111
DEC89	97877	898
JAN90	137768	1582
FEB90	120999	1024
MAR90	114573	1009
APR90	100646	1217
MAY90	109617	1243
JUN90	90003	1063
JUL90	110944	1120
AUG90	100656	1427
SEP90	105557	1224
OCT90	96216	1552
NOV90	93379	1039
DEC90	81196	816
JAN91	91174	1243
FEB91	92770	947
MAR91	88681	1065
APR91	104720	1109
MAY91	112495	1103
JUN91	95959	1383

Cost Center PP

CHASN	Units	Dollars
OCT89	5740	48
NOV89	2444	43
DEC89	2018	35
JAN90	2298	45
FEB90	2150	43
MAR90	2455	46
APR90	2047	49
MAY90	2636	45
JUN90	2487	51
JUL90	2972	55
AUG90	2719	39
SEP90	2324	36
OCT90	2146	42
NOV90	2019	43
DEC90	1782	42
JAN91	2010	41
FEB91	1734	51
MAR91	2514	33
APR91	2575	42
MAY91	3071	45
JUN91	2574	38

Cost Center RP

CHASN	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	369
NOV90	0	42
DEC90	0	133
JAN91	0	300
FEB91	0	89
MAR91	0	19
APR91	0	124
MAY91	0	192
JUN91	0	225

Cost Center SM

CHASN	Units	Dollars
OCT89	587131	186
NOV89	389343	-1
DEC89	224288	3
JAN90	632420	4
FEB90	466569	5
MAR90	436874	5
APR90	485143	2
MAY90	485232	3
JUN90	413366	21
JUL90	495212	3
AUG90	569928	7
SEP90	581065	36
OCT90	332946	201
NOV90	389007	-2
DEC90	354535	31
JAN91	543343	3
FEB91	376751	5
MAR91	357203	6
APR91	479102	11
MAY91	444960	4
JUN91	406792	4

Cost Center SP

CHASN	Units	Dollars
OCT89	11621	199
NOV89	14793	218
DEC89	12648	158
JAN90	19786	211
FEB90	15408	207
MAR90	21543	232
APR90	19258	226
MAY90	14773	225
JUN90	15504	203
JUL90	19249	210
AUG90	18189	250
SEP90	17723	220
OCT90	11253	230
NOV90	12923	234
DEC90	12988	174
JAN91	16403	236
FEB91	16218	228
MAR91	16599	250
APR91	14132	261
MAY91	15587	250
JUN91	17539	233

C. NRFC GREAT LAKES

Cost Center CD

GLAKE	Units	Dollars
OCT89	38168	27
NOV89	28404	27
DEC89	36322	41
JAN90	36322	41
FEB90	53209	40
MAR90	45144	38
APR90	40596	43
MAY90	61480	38
JUN90	36157	42
JUL90	48026	37
AUG90	39074	40
SEP90	44603	35
OCT90	40821	37
NOV90	28304	44
DEC90	46250	38
JAN91	0	0
FEB91	0	8
MAR91	0	6
APR91	0	30
MAY91	38311	9
JUN91	0	0

Cost Center CP

GLAKE	Units	Dollars
OCT89	20422	42
NOV89	21810	43
DEC89	27840	51
JAN90	27841	51
FEB90	21826	54
MAR90	21085	45
APR90	21918	53
MAY90	21312	46
JUN90	32059	53
JUL90	19127	52
AUG90	13148	38
SEP90	17997	52
OCT90	41028	53
NOV90	23864	61
DEC90	27564	58
JAN91	24430	77
FEB91	24200	57
MAR91	24266	46
APR91	24059	50
MAY91	22066	59
JUN91	0	0

Cost Center DB

GLAKE	Units	Dollars
OCT89	86367	84
NOV89	80316	102
DEC89	98640	96
JAN90	98641	97
FEB90	96323	103
MAR90	98591	83
APR90	134497	96
MAY90	109464	95
JUN90	114909	82
JUL90	107095	94
AUG90	109816	79
SEP90	71052	73
OCT90	120109	113
NOV90	118582	122
DEC90	106522	111
JAN91	140714	118
FEB91	121161	120
MAR91	137617	130
APR91	148968	121
MAY91	143965	125
JUN91	0	0

Cost Center DP

GLAKE	Units	Dollars
OCT89	--	10
NOV89	--	347
DEC89	--	347
JAN90	--	348
FEB90	--	-378
MAR90	--	692
APR90	--	693
MAY90	--	90
JUN90	--	34
JUL90	--	30
AUG90	--	504
SEP90	--	409
OCT90	0	16
NOV90	0	409
DEC90	0	41
JAN91	0	109
FEB91	0	88
MAR91	0	24
APR91	0	62
MAY91	0	64
JUN91	0	0

Cost Center FR

GLAKE	Units	Dollars
OCT89	160482	105
NOV89	146624	102
DEC89	179558	107
JAN90	179558	108
FEB90	209426	110
MAR90	165783	107
APR90	179250	98
MAY90	168791	106
JUN90	162523	94
JUL90	145635	103
AUG90	102215	97
SEP90	114253	103
OCT90	180859	110
NOV90	225956	136
DEC90	208091	106
JAN91	222354	119
FEB91	194469	110
MAR91	198940	116
APR91	214086	115
MAY91	211780	110
JUN91	0	0

Cost Center GA

GLAKE	Units	Dollars
OCT89	--	38
NOV89	0	83
DEC89	--	71
JAN90	--	72
FEB90	--	99
MAR90	--	74
APR90	--	75
MAY90	--	81
JUN90	--	43
JUL90	--	49
AUG90	--	68
SEP90	--	70
OCT90	0	55
NOV90	0	85
DEC90	0	52
JAN91	0	44
FEB91	0	153
MAR91	0	26
APR91	0	47
MAY91	0	116
JUN91	0	0

Cost Center RP

GLAKE	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	0
NOV90	0	0
DEC90	0	0
JAN91	0	0
FEB91	0	0
MAR91	0	0
APR91	0	0
MAY91	0	0
JUN91	0	0

D. NSC JACKSONVILLE

Cost Center DP

JAX	Units	Dollars
OCT89	--	597
NOV89	--	26
DEC89	--	79
JAN90	--	516
FEB90	--	-198
MAR90	--	-37
APR90	--	1001
MAY90	0	4
JUN90	--	527
JUL90	--	26
AUG90	--	4
SEP90	--	-4
OCT90	0	61
NOV90	0	597
DEC90	0	4
JAN91	0	524
FEB91	0	-6
MAR91	0	21
APR91	0	651
MAY91	0	5
JUN91	0	680

Cost Center FO

JAX	Units	Dollars
OCT89	4525	89
NOV89	3889	81
DEC89	3924	99
JAN90	4243	85
FEB90	3768	62
MAR90	3773	65
APR90	3672	59
MAY90	4073	62
JUN90	3933	60
JUL90	3033	55
AUG90	3820	128
SEP90	3307	146
OCT90	2687	159
NOV90	3015	37
DEC90	2667	58
JAN91	2978	70
FEB91	2211	69
MAR91	2636	63
APR91	2564	87
MAY91	3130	92
JUN91	2905	80

Cost Center GA

JAX	Units	Dollars
OCT89	--	844
NOV89	--	256
DEC89	--	194
JAN90	--	1233
FEB90	--	639
MAR90	--	-399
APR90	--	310
MAY90	--	143
JUN90	--	589
JUL90	--	198
AUG90	--	408
SEP90	--	264
OCT90	0	842
NOV90	0	156
DEC90	0	275
JAN91	0	753
FEB91	0	146
MAR91	0	180
APR91	0	695
MAY91	0	49
JUN91	0	715

Cost Center LP

JAX	Units	Dollars
OCT89	470	66
NOV89	131	75
DEC89	140	27
JAN90	212	91
FEB90	108	56
MAR90	288	81
APR90	169	84
MAY90	-157	77
JUN90	107	58
JUL90	130	73
AUG90	136	73
SEP90	245	95
OCT90	486	87
NOV90	60	69
DEC90	342	68
JAN91	61	81
FEB91	137	70
MAR91	136	79
APR91	104	80
MAY91	111	88
JUN91	228	65

Cost Center MA

JAX	Units	Dollars
OCT89	148982	19
NOV89	94930	20
DEC89	93239	6
JAN90	77480	25
FEB90	90285	15
MAR90	59836	17
APR90	87484	18
MAY90	71541	20
JUN90	101236	16
JUL90	84158	20
AUG90	79762	29
SEP90	88431	29
OCT90	86553	22
NOV90	73634	15
DEC90	71171	17
JAN91	75904	28
FEB91	76215	24
MAR91	80717	17
APR91	92037	24
MAY91	81897	20
JUN91	81383	24

Cost Center PD

JAX	Units	Dollars
OCT89	88465	1020
NOV89	69605	878
DEC89	57849	503
JAN90	78700	827
FEB90	73917	590
MAR90	59116	672
APR90	54811	553
MAY90	79522	707
JUN90	66343	604
JUL90	50953	699
AUG90	68486	927
SEP90	47189	690
OCT90	50704	1754
NOV90	59836	320
DEC90	58033	530
JAN91	52515	881
FEB91	57907	635
MAR91	63440	816
APR91	56462	622
MAY91	62149	695
JUN91	59280	615

Cost Center PP

JAX	Units	Dollars
OCT89	2556	81
NOV89	2227	52
DEC89	2033	62
JAN90	2342	69
FEB90	2185	61
MAR90	2213	69
APR90	2295	97
MAY90	3007	76
JUN90	2921	57
JUL90	2731	75
AUG90	4280	68
SEP90	2531	25
OCT90	2432	123
NOV90	2350	58
DEC90	2288	33
JAN91	2455	67
FEB91	2269	84
MAR91	2239	52
APR91	2974	53
MAY91	3511	66
JUN91	2950	81

Cost Center RP

JAX	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	138
NOV90	0	18
DEC90	0	48
JAN91	0	34
FEB91	0	25
MAR91	0	49
APR91	0	103
MAY91	0	42
JUN91	0	103

Cost Center SM

JAX	Units	Dollars
OCT89	1385000	51
NOV89	1134481	48
DEC89	728236	25
JAN90	1632374	74
FEB90	1121543	48
MAR90	1165872	56
APR90	1271381	58
MAY90	1471121	60
JUN90	1039728	47
JUL90	1730759	53
AUG90	1208190	62
SEP90	1146599	53
OCT90	1058614	64
NOV90	1080377	43
DEC90	1262268	96
JAN91	1534983	91
FEB91	1213922	59
MAR91	1083153	93
APR91	1324729	64
MAY91	1916257	73
JUN91	1078342	54

Cost Center SP

JAX	Units	Dollars
OCT89	5480	105
NOV89	4458	108
DEC89	5896	46
JAN90	4621	166
FEB90	4411	80
MAR90	6920	103
APR90	4789	118
MAY90	4908	118
JUN90	5920	106
JUL90	7000	122
AUG90	6798	153
SEP90	8616	175
OCT90	4216	118
NOV90	4863	80
DEC90	5983	87
JAN91	4767	109
FEB91	5641	101
MAR91	5452	101
APR91	5817	108
MAY91	5956	114
JUN91	5930	88

E. NRCC NAPLES

Cost Center GA

NAP	Units	Dollars
OCT89	--	254
NOV89	--	282
DEC89	--	155
JAN90	--	261
FEB90	--	185
MAR90	--	269
APR90	--	199
MAY90	--	213
JUN90	--	238
JUL90	--	236
AUG90	--	207
SEP90	--	222
OCT90	0	107
NOV90	0	82
DEC90	0	94
JAN91	0	194
FEB91	0	0
MAR91	0	115
APR91	0	109
MAY91	0	59
JUN91	0	171

Cost Center LP

NAP	Units	Dollars
OCT89	456	143
NOV89	192	142
DEC89	329	134
JAN90	788	139
FEB90	365	145
MAR90	866	148
APR90	533	141
MAY90	215	168
JUN90	665	151
JUL90	491	159
AUG90	82	201
SEP90	575	144
OCT90	572	236
NOV90	373	214
DEC90	980	377
JAN91	668	299
FEB91	429	207
MAR91	446	295
APR91	96	186
MAY91	303	154
JUN91	533	215

Cost Center RP

NAP	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	0
NOV90	0	0
DEC90	0	0
JAN91	0	0
FEB91	0	0
MAR91	0	0
APR91	0	0
MAY91	0	0
JUN91	0	0

Cost Center SP

NAP	Units	Dollars
OCT89	882	30
NOV89	1783	30
DEC89	1787	29
JAN90	2206	22
FEB90	1967	23
MAR90	1691	23
APR90	1275	24
MAY90	1834	25
JUN90	1544	35
JUL90	1724	25
AUG90	1615	27
SEP90	2803	26
OCT90	1484	26
NOV90	2085	35
DEC90	1667	43
JAN91	1788	32
FEB91	2114	34
MAR91	1564	33
APR91	1405	32
MAY91	1415	26
JUN91	1876	39

F. NAVY MATERIAL AND TRANSPORTATION OFFICE

Cost Center AT

NMTO	Units	Dollars
OCT89	41307	73
NOV89	40989	93
DEC89	23083	81
JAN90	33966	79
FEB90	31299	79
MAR90	36096	104
APR90	35352	39
MAY90	37372	80
JUN90	29089	66
JUL90	33822	139
AUG90	38603	117
SEP90	42655	160
OCT90	99227	75
NOV90	48831	105
DEC90	59856	114
JAN91	97941	199
FEB91	41136	71
MAR91	43645	134
APR91	36998	139
MAY91	39129	126
JUN91	55693	60

Cost Center GA

NMTO	Units	Dollars
OCT89	--	635
NOV89	--	758
DEC89	--	971
JAN90	--	752
FEB90	--	632
MAR90	--	672
APR90	--	859
MAY90	--	812
JUN90	--	550
JUL90	--	847
AUG90	--	790
SEP90	--	815
OCT90	0	861
NOV90	0	931
DEC90	0	878
JAN91	0	926
FEB91	0	895
MAR91	0	689
APR91	0	958
MAY91	0	777
JUN91	0	827

Cost Center RP

NMTO	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	0
NOV90	0	0
DEC90	0	0
JAN91	0	0
FEB91	0	0
MAR91	0	75
APR91	0	0
MAY91	0	0
JUN91	0	0

G. NSC NORFOLK

Cost Center AH

NORVA	Units	Dollars
OCT89	35052	170
NOV89	34391	443
DEC89	29354	-71
JAN90	34365	205
FEB90	34286	186
MAR90	36243	190
APR90	37736	222
MAY90	34366	215
JUN90	33133	118
JUL90	31888	170
AUG90	33941	313
SEP90	28329	170
OCT90	34928	130
NOV90	34927	130
DEC90	31842	505
JAN91	35321	313
FEB91	34554	201
MAR91	42986	406
APR91	32943	259
MAY91	30175	234
JUN91	0	0

Cost Center CP

NORVA	Units	Dollars
OCT89	41104	83
NOV89	60903	71
DEC89	41521	82
JAN90	41916	123
FEB90	42133	91
MAR90	42057	91
APR90	41729	93
MAY90	62269	75
JUN90	41330	84
JUL90	41359	92
AUG90	41626	99
SEP90	41616	115
OCT90	51779	62
NOV90	51778	63
DEC90	41500	173
JAN91	41488	49
FEB91	41786	77
MAR91	42011	81
APR91	42111	94
MAY91	63110	90
JUN91	0	0

Cost Center DB

NORVA	Units	Dollars
OCT89	10036	11
NOV89	17882	18
DEC89	11426	9
JAN90	11018	10
FEB90	10454	9
MAR90	14532	11
APR90	9603	18
MAY90	14543	7
JUN90	11372	11
JUL90	9073	24
AUG90	11144	10
SEP90	15658	6
OCT90	13173	9
NOV90	13173	8
DEC90	12436	20
JAN91	9174	4
FEB91	8850	9
MAR91	13456	11
APR91	8526	10
MAY91	13578	11
JUN91	0	0

Cost Center DP

NORVA	Units	Dollars
OCT89	--	654
NOV89	--	513
DEC89	--	1417
JAN90	--	611
FEB90	--	739
MAR90	--	665
APR90	--	578
MAY90	--	663
JUN90	--	573
JUL90	--	604
AUG90	--	682
SEP90	--	654
OCT90	0	520
NOV90	0	521
DEC90	0	1796
JAN91	0	241
FEB91	0	502
MAR91	0	473
APR91	0	497
MAY91	0	568
JUN91	0	0

Cost Center FO

NORVA	Units	Dollars
OCT89	7521	207
NOV89	8837	227
DEC89	6008	182
JAN90	9545	208
FEB90	8033	193
MAR90	6941	217
APR90	6873	194
MAY90	5015	208
JUN90	8624	190
JUL90	7019	183
AUG90	9989	206
SEP90	6306	231
OCT90	4941	184
NOV90	4941	185
DEC90	6663	466
JAN91	4981	105
FEB91	6118	179
MAR91	4939	197
APR91	6869	181
MAY91	6794	161
JUN91	0	0

Cost Center GA

NORVA	Units	Dollars
OCT89	--	3471
NOV89	--	1557
DEC89	--	1200
JAN90	--	3700
FEB90	--	1311
MAR90	--	1235
APR90	--	2617
MAY90	--	1722
JUN90	--	1647
JUL90	--	1069
AUG90	--	1586
SEP90	--	4242
OCT90	0	2138
NOV90	0	2138
DEC90	0	182
JAN91	0	4940
FEB91	0	1792
MAR91	0	614
APR91	0	2222
MAY91	0	1031
JUN91	0	0

Cost Center LP

NORVA	Units	Dollars
OCT89	881	259
NOV89	522	230
DEC89	766	201
JAN90	857	263
FEB90	818	237
MAR90	1367	228
APR90	987	204
MAY90	724	255
JUN90	931	187
JUL90	400	207
AUG90	601	214
SEP90	959	199
OCT90	834	172
NOV90	356	173
DEC90	849	415
JAN91	600	105
FEB91	743	201
MAR91	565	213
APR91	408	231
MAY91	379	246
JUN91	484	228

Cost Center MA

NORVA	Units	Dollars
OCT89	389335	71
NOV89	335591	63
DEC89	295732	66
JAN90	379434	69
FEB90	347707	66
MAR90	404287	73
APR90	380667	107
MAY90	381675	72
JUN90	354425	66
JUL90	450272	79
AUG90	389731	61
SEP90	393779	62
OCT90	385959	31
NOV90	385958	30
DEC90	321226	156
JAN91	368664	75
FEB91	373805	63
MAR91	324429	68
APR91	339447	66
MAY91	402410	67
JUN91	0	0

Cost Center PD

NORVA	Units	Dollars
OCT89	264324	3412
NOV89	229793	2979
DEC89	221004	3105
JAN90	263366	4313
FEB90	254057	3013
MAR90	277937	3396
APR90	263818	3056
MAY90	268831	3630
JUN90	264303	3120
JUL90	268815	3399
AUG90	277482	3514
SEP90	274419	4096
OCT90	251790	2176
NOV90	251789	2176
DEC90	245840	7534
JAN91	254890	3845
FEB91	260683	3579
MAR91	258672	4004
APR91	242876	3956
MAY91	245616	3532
JUN91	0	0

Cost Center PP

NORVA	Units	Dollars
OCT89	6423	53
NOV89	6309	53
DEC89	6355	250
JAN90	6532	116
FEB90	5889	107
MAR90	6508	86
APR90	6669	74
MAY90	8120	119
JUN90	7683	0
JUL90	7216	101
AUG90	7139	148
SEP90	5656	102
OCT90	5589	171
NOV90	5589	49
DEC90	4738	109
JAN91	5752	100
FEB91	5027	286
MAR91	5782	-54
APR91	5951	114
MAY91	8124	125
JUN91	0	121

Cost Center RP

NORVA	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	373
NOV90	0	373
DEC90	0	630
JAN91	0	388
FEB91	0	376
MAR91	0	333
APR91	0	629
MAY91	0	596
JUN91	0	0

Cost Center SM

NORVA	Units	Dollars
OCT89	1300471	34
NOV89	1319873	35
DEC89	933831	47
JAN90	2077178	88
FEB90	1429539	66
MAR90	1480603	65
APR90	1662827	39
MAY90	1638774	52
JUN90	1456632	45
JUL90	1945512	56
AUG90	2745066	100
SEP90	2006564	153
OCT90	1417439	23
NOV90	1417438	23
DEC90	1530452	106
JAN91	2056956	65
FEB91	1411786	55
MAR91	1067810	83
APR91	1811754	69
MAY91	1969867	69
JUN91	0	0

Cost Center SP

NORVA	Units	Dollars
OCT89	12316	273
NOV89	13075	241
DEC89	11286	240
JAN90	16857	256
FEB90	17400	246
MAR90	18387	264
APR90	15803	234
MAY90	18194	278
JUN90	16507	229
JUL90	16612	265
AUG90	20788	251
SEP90	19565	284
OCT90	10081	204
NOV90	13625	204
DEC90	16041	495
JAN91	16938	96
FEB91	14367	244
MAR91	14869	235
APR91	15526	241
MAY91	20405	248
JUN91	17610	246

H. NAVAL PUBLICATIONS AND FORMS CENTER

Cost Center CP

NPFC	Units	Dollars
OCT89	18095	42
NOV89	18130	43
DEC89	27039	48
JAN90	17973	27
FEB90	17838	40
MAR90	17716	43
APR90	17554	42
MAY90	17461	38
JUN90	26236	33
JUL90	15731	39
AUG90	17467	34
SEP90	17312	30
OCT90	0	0
NOV90	34286	89
DEC90	25361	35
JAN91	16882	50
FEB91	16784	46
MAR91	16691	42
APR91	16731	36
MAY91	16835	52
JUN91	25395	37

Cost Center DB

NPFC	Units	Dollars
OCT89	18448	31
NOV89	21821	48
DEC89	23226	69
JAN90	21335	20
FEB90	17716	41
MAR90	26224	55
APR90	18758	44
MAY90	25048	44
JUN90	24318	35
JUL90	19417	34
AUG90	19701	36
SEP90	18449	-19
OCT90	0	0
NOV90	40367	71
DEC90	17665	23
JAN91	17789	59
FEB91	19724	18
MAR91	21955	34
APR91	27729	39
MAY91	20049	32
JUN91	20726	25

Cost Center FR

NPFC	Units	Dollars
OCT89	38005	93
NOV89	31360	57
DEC89	102424	80
JAN90	130544	41
FEB90	101487	67
MAR90	87379	83
APR90	75446	69
MAY90	108317	75
JUN90	103627	45
JUL90	117025	101
AUG90	91957	46
SEP90	101204	77
OCT90	0	0
NOV90	184179	158
DEC90	122845	65
JAN91	65743	67
FEB91	92864	75
MAR91	111270	80
APR91	13216	8
MAY91	74956	102
JUN91	98425	61

Cost Center GA

NPFC	Units	Dollars
OCT89	--	545
NOV89	--	374
DEC89	--	196
JAN90	--	589
FEB90	--	228
MAR90	--	346
APR90	--	231
MAY90	--	521
JUN90	--	262
JUL90	--	285
AUG90	--	161
SEP90	--	486
OCT90	0	0
NOV90	0	1310
DEC90	0	308
JAN91	0	366
FEB91	0	280
MAR91	0	198
APR91	0	175
MAY91	0	256
JUN91	0	285

Cost Center IC

NPFC	Units	Dollars
OCT89	9167	80
NOV89	9093	102
DEC89	9110	72
JAN90	9062	86
FEB90	9025	82
MAR90	9049	119
APR90	9078	116
MAY90	8945	141
JUN90	8719	92
JUL90	8992	97
AUG90	9019	110
SEP90	8797	57
OCT90	0	0
NOV90	17661	195
DEC90	8326	67
JAN91	8430	93
FEB91	8565	69
MAR91	8260	88
APR91	8491	94
MAY91	8486	94
JUN91	8391	72

Cost Center MA

NPFC	Units	Dollars
OCT89	2791	12
NOV89	5221	13
DEC89	7953	16
JAN90	10115	5
FEB90	11583	13
MAR90	11889	14
APR90	14119	16
MAY90	10472	8
JUN90	10448	10
JUL90	10125	3
AUG90	9664	18
SEP90	9547	11
OCT90	0	0
NOV90	15473	23
DEC90	3126	10
JAN91	8578	7
FEB91	18020	10
MAR91	13010	10
APR91	99494	67
MAY91	13415	14
JUN91	11198	9

Cost Center PD

NPFC	Units	Dollars
OCT89	162639	409
NOV89	154851	327
DEC89	121266	301
JAN90	138920	341
FEB90	147120	466
MAR90	184296	277
APR90	156738	391
MAY90	144038	360
JUN90	151208	135
JUL90	144869	434
AUG90	151590	298
SEP90	108493	271
OCT90	0	0
NOV90	302383	725
DEC90	118600	233
JAN91	141455	448
FEB91	133832	404
MAR91	176688	354
APR91	183398	476
MAY91	165446	407
JUN91	128976	362

Cost Center RP

NPFC	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	0
NOV90	0	0
DEC90	0	0
JAN91	0	0
FEB91	0	0
MAR91	0	0
APR91	0	0
MAY91	0	0
JUN91	0	0

I. NAVY REGIONAL FINANCE CENTER

Cost Center CP

NRFC	Units	Dollars
OCT89	86884	151
NOV89	85762	131
DEC89	128965	192
JAN90	86093	118
FEB90	85538	156
MAR90	84822	134
APR90	84120	131
MAY90	83650	134
JUN90	83588	210
JUL90	102107	92
AUG90	83357	126
SEP90	103209	164
OCT90	54647	105
NOV90	67939	129
DEC90	109265	186
JAN91	72805	131
FEB91	76413	131
MAR91	71152	135
APR91	71022	134
MAY91	70851	136
JUN91	107324	205

Cost Center DB

NRFC	Units	Dollars
OCT89	253311	296
NOV89	265710	238
DEC89	265557	316
JAN90	246428	183
FEB90	251935	220
MAR90	259453	230
APR90	258444	305
MAY90	262892	229
JUN90	268812	326
JUL90	470502	212
AUG90	288550	226
SEP90	269095	286
OCT90	136230	190
NOV90	110840	213
DEC90	109389	311
JAN91	89246	291
FEB91	94904	197
MAR91	156323	210
APR91	152536	265
MAY91	166989	180
JUN91	130533	224

Cost Center DP

NRFC	Units	Dollars
OCT89	--	251
NOV89	--	52
DEC89	--	393
JAN90	--	989
FEB90	--	60
MAR90	--	337
APR90	--	247
MAY90	--	51
JUN90	0	605
JUL90	--	648
AUG90	--	200
SEP90	--	391
OCT90	0	342
NOV90	0	92
DEC90	0	76
JAN91	0	137
FEB91	0	174
MAR91	0	288
APR91	0	299
MAY91	0	71
JUN91	0	146

Cost Center FR

NRFC	Units	Dollars
OCT89	362650	492
NOV89	361676	323
DEC89	430308	487
JAN90	405213	286
FEB90	413481	333
MAR90	441904	312
APR90	487265	309
MAY90	469150	346
JUN90	429103	467
JUL90	455097	346
AUG90	419979	272
SEP90	573292	341
OCT90	440359	461
NOV90	393938	323
DEC90	401105	478
JAN91	383416	282
FEB91	491481	340
MAR91	497150	230
APR91	521674	249
MAY91	534515	315
JUN91	521923	498

Cost Center GA

NRFC	Units	Dollars
OCT89	--	156
NOV89	--	69
DEC89	--	96
JAN90	--	67
FEB90	--	66
MAR90	--	93
APR90	--	62
MAY90	--	105
JUN90	--	131
JUL90	--	60
AUG90	--	1
SEP90	0	84
OCT90	0	86
NOV90	0	61
DEC90	0	129
JAN91	0	98
FEB91	0	61
MAR91	0	63
APR91	0	100
MAY91	0	53
JUN91	0	93

J. NSC OAKLAND

Cost Center CP		
OAK	Units	Dollars
OCT89	32373	63
NOV89	32248	75
DEC89	31914	71
JAN90	31734	67
FEB90	31732	78
MAR90	47202	79
APR90	30977	72
MAY90	31158	77
JUN90	30700	85
JUL90	33377	64
AUG90	37544	65
SEP90	27690	55
OCT90	27618	75
NOV90	22246	72
DEC90	28116	70
JAN91	24870	89
FEB91	24700	49
MAR91	36878	77
APR91	24534	79
MAY91	24443	79
JUN91	24351	58

Cost Center DB		
OAK	Units	Dollars
OCT89	146653	183
NOV89	145252	188
DEC89	158152	193
JAN90	129287	204
FEB90	143394	189
MAR90	181480	214
APR90	139548	192
MAY90	161718	202
JUN90	153397	200
JUL90	155445	171
AUG90	126818	176
SEP90	130088	200
OCT90	142383	177
NOV90	114301	192
DEC90	99013	149
JAN91	102133	197
FEB91	117151	175
MAR91	116712	127
APR91	113912	229
MAY91	120715	183
JUN91	121465	179

Cost Center DP		
OAK	Units	Dollars
OCT89	--	914
NOV89	--	323
DEC89	--	376
JAN90	--	863
FEB90	--	322
MAR90	--	443
APR90	--	857
MAY90	--	376
JUN90	--	364
JUL90	--	692
AUG90	--	349
SEP90	--	453
OCT90	0	1517
NOV90	0	377
DEC90	0	306
JAN91	0	608
FEB91	0	367
MAR91	0	366
APR91	0	426
MAY91	0	485
JUN91	0	1128

Cost Center FO		
OAK	Units	Dollars
OCT89	5285	45
NOV89	3228	46
DEC89	3642	40
JAN90	4415	42
FEB90	3951	46
MAR90	5114	60
APR90	3877	46
MAY90	3812	47
JUN90	3058	43
JUL90	3027	44
AUG90	5068	56
SEP90	4987	29
OCT90	2456	55
NOV90	2010	46
DEC90	1271	42
JAN91	2042	50
FEB91	1961	40
MAR91	1057	46
APR91	2426	40
MAY91	1813	69
JUN91	1830	66

Cost Center FR

OAK	Units	Dollars
OCT89	132089	184
NOV89	107531	160
DEC89	149612	143
JAN90	155254	167
FEB90	144699	152
MAR90	170132	176
APR90	146763	164
MAY90	183286	174
JUN90	163052	175
JUL90	144847	167
AUG90	152540	181
SEP90	159470	165
OCT90	136758	211
NOV90	122963	143
DEC90	94188	131
JAN91	98336	163
FEB91	84788	165
MAR91	103300	210
APR91	104705	181
MAY91	82850	186
JUN91	78090	173

Cost Center GA

OAK	Units	Dollars
OCT89	0	2233
NOV89	--	4090
DEC89	--	2569
JAN90	--	2466
FEB90	--	1506
MAR90	--	1525
APR90	--	2120
MAY90	--	1459
JUN90	--	1642
JUL90	--	6952
AUG90	--	2417
SEP90	--	1852
OCT90	0	1410
NOV90	0	2333
DEC90	0	1052
JAN91	0	1278
FEB91	0	2278
MAR91	0	1430
APR91	0	1235
MAY91	0	983
JUN91	0	2664

Cost Center LP

OAK	Units	Dollars
OCT89	89	55
NOV89	9	49
DEC89	27	44
JAN90	103	45
FEB90	63	58
MAR90	77	17
APR90	60	49
MAY90	41	39
JUN90	49	43
JUL90	60	48
AUG90	50	60
SEP90	230	42
OCT90	25	49
NOV90	55	51
DEC90	13	36
JAN91	84	49
FEB91	18	43
MAR91	114	45
APR91	59	53
MAY91	94	67
JUN91	0	49

Cost Center MA

OAK	Units	Dollars
OCT89	51060	48
NOV89	48617	46
DEC89	34880	45
JAN90	47039	50
FEB90	38925	45
MAR90	36406	53
APR90	41387	54
MAY90	33945	56
JUN90	33925	48
JUL90	35655	44
AUG90	80039	48
SEP90	25653	40
OCT90	36301	48
NOV90	47193	40
DEC90	33829	34
JAN91	36257	51
FEB91	45110	50
MAR91	59858	66
APR91	39460	64
MAY91	30769	52
JUN91	33233	44

Cost Center PD

OAK	Units	Dollars
OCT89	111779	1543
NOV89	98185	1779
DEC89	151762	580
JAN90	164087	2055
FEB90	145809	1515
MAR90	167338	1519
APR90	154143	1704
MAY90	147373	1727
JUN90	137537	1549
JUL90	134	416
AUG90	409	22
SEP90	0	-22
OCT90	0	332
NOV90	0	295
DEC90	0	212
JAN91	0	85
FEB91	0	261
MAR91	0	511
APR91	0	356
MAY91	0	286
JUN91	0	844

Cost Center PP

OAK	Units	Dollars
OCT89	5640	113
NOV89	5755	98
DEC89	4832	86
JAN90	6042	112
FEB90	5167	99
MAR90	5111	119
APR90	6008	116
MAY90	5567	130
JUN90	5596	125
JUL90	5205	93
AUG90	5826	101
SEP90	4536	93
OCT90	4500	108
NOV90	3855	109
DEC90	3244	113
JAN91	4398	114
FEB91	3484	119
MAR91	3828	113
APR91	4292	111
MAY91	5668	117
JUN91	5206	102

Cost Center RP

OAK	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	308
NOV90	0	136
DEC90	0	221
JAN91	0	42
FEB91	0	103
MAR91	0	100
APR91	0	-43
MAY91	0	126
JUN91	0	284

Cost Center SM

OAK	Units	Dollars
OCT89	164148	47
NOV89	155749	5
DEC89	135784	5
JAN90	112377	48
FEB90	121247	6
MAR90	125284	6
APR90	152823	49
MAY90	94885	8
JUN90	146617	10
JUL90	174822	33
AUG90	267056	24
SEP90	140025	21
OCT90	116432	24
NOV90	161177	18
DEC90	130562	19
JAN91	199619	21
FEB91	197663	18
MAR91	152639	21
APR91	188781	20
MAY91	191066	22
JUN91	165950	23

Cost Center SP

OAK	Units	Dollars
OCT89	3565	98
NOV89	5047	102
DEC89	4472	91
JAN90	4955	94
FEB90	4316	107
MAR90	5363	137
APR90	4535	113
MAY90	3159	85
JUN90	3911	121
JUL90	3828	80
AUG90	3972	112
SEP90	5024	98
OCT90	4409	100
NOV90	3131	105
DEC90	2829	78
JAN91	4233	108
FEB91	4179	104
MAR91	4291	124
APR91	4212	119
MAY91	4450	119
JUN91	0	100

K. NSC PEARL HARBOR

Cost Center DP

PEARL	Units	Dollars
OCT89	--	348
NOV89	--	274
DEC89	--	579
JAN90	--	244
FEB90	--	236
MAR90	--	287
APR90	--	262
MAY90	--	250
JUN90	--	244
JUL90	--	151
AUG90	--	260
SEP90	--	202
OCT90	0	302
NOV90	0	245
DEC90	0	201
JAN91	0	610
FEB91	0	241
MAR91	0	252
APR91	0	237
MAY91	0	242
JUN91	0	218

Cost Center FO

PEARL	Units	Dollars
OCT89	1601	136
NOV89	2078	136
DEC89	1524	119
JAN90	1677	141
FEB90	2706	141
MAR90	2721	151
APR90	1893	136
MAY90	2401	162
JUN90	1845	145
JUL90	1775	150
AUG90	1917	171
SEP90	1185	190
OCT90	1407	162
NOV90	2944	143
DEC90	2642	132
JAN91	2009	165
FEB91	2960	156
MAR91	2577	148
APR91	1985	168
MAY91	3066	169
JUN91	1833	156

Cost Center GA

PEARL	Units	Dollars
OCT89	--	1208
NOV89	--	850
DEC89	--	-56
JAN90	--	594
FEB90	--	97
MAR90	--	358
APR90	--	1797
MAY90	--	401
JUN90	--	286
JUL90	--	279
AUG90	--	419
SEP90	--	1411
OCT90	0	1208
NOV90	0	87
DEC90	0	797
JAN91	0	730
FEB91	0	441
MAR91	0	-29
APR91	0	998
MAY91	0	230
JUN91	0	1155

Cost Center LP

PEARL	Units	Dollars
OCT89	381	84
NOV89	45	69
DEC89	8	60
JAN90	112	73
FEB90	127	80
MAR90	192	73
APR90	152	77
MAY90	194	85
JUN90	158	83
JUL90	164	72
AUG90	183	94
SEP90	223	109
OCT90	234	100
NOV90	75	89
DEC90	124	68
JAN91	40	93
FEB91	115	95
MAR91	52	91
APR91	91	90
MAY91	92	98
JUN91	387	90

Cost Center MA

PEARL	Units	Dollars
OCT89	94451	27
NOV89	85178	24
DEC89	83777	23
JAN90	76665	24
FEB90	102683	22
MAR90	98117	28
APR90	90880	25
MAY90	100580	27
JUN90	86886	26
JUL90	100870	26
AUG90	96750	27
SEP90	83095	35
OCT90	73902	30
NOV90	82037	22
DEC90	69830	20
JAN91	73954	30
FEB91	77765	26
MAR91	64950	26
APR91	76211	28
MAY91	84234	25
JUN91	64858	24

Cost Center PD

PEARL	Units	Dollars
OCT89	43417	673
NOV89	44092	513
DEC89	39594	452
JAN90	48634	427
FEB90	49073	472
MAR90	53757	675
APR90	53561	482
MAY90	58573	566
JUN90	55500	512
JUL90	66473	517
AUG90	51991	442
SEP90	43738	685
OCT90	39702	612
NOV90	44560	506
DEC90	40872	311
JAN91	48327	603
FEB91	42635	537
MAR91	41407	507
APR91	46401	581
MAY91	53472	463
JUN91	43241	507

Cost Center PP

PEARL	Units	Dollars
OCT89	5885	141
NOV89	5461	133
DEC89	5443	111
JAN90	5910	142
FEB90	5148	124
MAR90	6449	133
APR90	6405	124
MAY90	7370	162
JUN90	7080	138
JUL90	7932	126
AUG90	7383	122
SEP90	5681	122
OCT90	5762	119
NOV90	4866	118
DEC90	5266	169
JAN91	5029	79
FEB91	4244	127
MAR91	4791	150
APR91	5933	143
MAY91	7918	150
JUN91	6593	124

Cost Center RP

PEARL	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	216
NOV90	0	107
DEC90	0	96
JAN91	0	218
FEB91	0	89
MAR91	0	128
APR91	0	333
MAY91	0	134
JUN91	0	148

Cost Center SM

PEARL	Units	Dollars
OCT89	283283	193
NOV89	203659	-9
DEC89	243977	2
JAN90	318778	2
FEB90	380482	-112
MAR90	359571	115
APR90	430336	1
MAY90	379003	3
JUN90	243868	1
JUL90	457931	3
AUG90	320077	-6
SEP90	284616	13
OCT90	237468	171
NOV90	270710	19
DEC90	265608	2
JAN91	392518	3
FEB91	325718	1
MAR91	256920	39
APR91	415949	3
MAY91	380324	2
JUN91	273005	2

Cost Center SP

PEARL	Units	Dollars
OCT89	8286	65
NOV89	3921	68
DEC89	2766	58
JAN90	5328	62
FEB90	3237	72
MAR90	2932	78
APR90	4049	74
MAY90	3524	80
JUN90	3442	59
JUL90	4085	82
AUG90	5670	101
SEP90	3225	117
OCT90	6440	71
NOV90	2378	68
DEC90	2308	43
JAN91	2594	60
FEB91	1500	89
MAR91	3937	76
APR91	5010	75
MAY91	3590	76
JUN91	10692	68

L. NSC PENSACOLA

Cost Center DP

PEN	Units	Dollars
OCT89	--	290
NOV89	--	118
DEC89	--	209
JAN90	--	195
FEB90	--	214
MAR90	--	199
APR90	--	209
MAY90	--	205
JUN90	--	197
JUL90	--	201
AUG90	--	183
SEP90	--	212
OCT90	0	187
NOV90	0	479
DEC90	0	61
JAN91	0	510
FEB91	0	46
MAR91	0	12
APR91	0	479
MAY91	0	53
JUN91	0	0

Cost Center FO

PEN	Units	Dollars
OCT89	738	13
NOV89	626	18
DEC89	522	21
JAN90	579	15
FEB90	548	14
MAR90	748	17
APR90	901	16
MAY90	811	18
JUN90	580	18
JUL90	881	14
AUG90	1048	20
SEP90	452	15
OCT90	676	16
NOV90	605	15
DEC90	461	16
JAN91	495	18
FEB91	569	15
MAR91	494	16
APR91	607	19
MAY91	792	18
JUN91	0	0

Cost Center GA

PEN	Units	Dollars
OCT89	--	359
NOV89	--	212
DEC89	--	392
JAN90	--	356
FEB90	--	190
MAR90	--	221
APR90	--	314
MAY90	--	178
JUN90	--	308
JUL90	--	278
AUG90	--	220
SEP90	--	701
OCT90	0	300
NOV90	0	566
DEC90	0	130
JAN91	0	401
FEB91	0	124
MAR91	0	123
APR91	0	402
MAY91	0	195
JUN91	0	0

Cost Center LP

PEN	Units	Dollars
OCT89	43	17
NOV89	9	18
DEC89	37	16
JAN90	40	17
FEB90	49	17
MAR90	33	25
APR90	35	15
MAY90	30	17
JUN90	36	20
JUL90	35	20
AUG90	21	21
SEP90	107	24
OCT90	29	21
NOV90	24	22
DEC90	64	20
JAN91	52	27
FEB91	16	21
MAR91	48	27
APR91	51	31
MAY91	59	24
JUN91	0	0

Cost Center PD

PEN	Units	Dollars
OCT89	64406	551
NOV89	66093	669
DEC89	56272	666
JAN90	63299	714
FEB90	54832	527
MAR90	65410	571
APR90	61640	539
MAY90	64437	616
JUN90	55907	535
JUL90	57401	605
AUG90	68664	664
SEP90	60769	638
OCT90	59248	639
NOV90	55758	554
DEC90	53179	555
JAN91	58436	594
FEB91	57752	570
MAR91	57502	620
APR91	62447	598
MAY91	55126	646
JUN91	0	0

Cost Center PP

PEN	Units	Dollars
OCT89	2248	45
NOV89	2076	43
DEC89	1676	42
JAN90	2422	53
FEB90	2255	48
MAR90	2448	52
APR90	2304	52
MAY90	2705	52
JUN90	2721	0
JUL90	2498	44
AUG90	2534	40
SEP90	2305	39
OCT90	2319	46
NOV90	2244	43
DEC90	1943	48
JAN91	2137	48
FEB91	1677	48
MAR91	2089	43
APR91	2413	44
MAY91	2774	55
JUN91	0	45

Cost Center RP

PEN	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	0
NOV90	0	0
DEC90	0	0
JAN91	0	239
FEB91	0	2
MAR91	0	0
APR91	0	75
MAY91	0	7
JUN91	0	0

Cost Center SM

PEN	Units	Dollars
OCT89	131295	13
NOV89	111367	7
DEC89	87975	6
JAN90	148583	10
FEB90	95450	6
MAR90	146120	7
APR90	124301	5
MAY90	124156	6
JUN90	109541	13
JUL90	131535	8
AUG90	159686	7
SEP90	157914	6
OCT90	512576	19
NOV90	596073	33
DEC90	549049	25
JAN91	506693	24
FEB91	320354	22
MAR91	440363	27
APR91	651827	24
MAY91	391938	34
JUN91	0	0

Cost Center SP

PEN	Units	Dollars
OCT89	3302	45
NOV89	2151	45
DEC89	4404	42
JAN90	4156	47
FEB90	3233	43
MAR90	4987	41
APR90	3002	38
MAY90	3444	41
JUN90	2648	40
JUL90	3273	45
AUG90	4434	55
SEP90	4516	66
OCT90	3068	48
NOV90	3993	51
DEC90	3075	50
JAN91	3475	50
FEB91	2243	42
MAR91	2638	47
APR91	2856	53
MAY91	4325	51
JUN91	0	0

M. NRCC PHILADELPHIA

Cost Center GA

PHIL	Units	Dollars
OCT89	--	298
NOV89	--	263
DEC89	--	283
JAN90	--	534
FEB90	--	236
MAR90	--	301
APR90	--	356
MAY90	--	237
JUN90	--	178
JUL90	--	362
AUG90	--	254
SEP90	--	303
OCT90	0	386
NOV90	0	251
DEC90	0	340
JAN91	0	482
FEB91	0	251
MAR91	0	177
APR91	0	282
MAY91	0	301
JUN91	0	256

Cost Center LP

PHIL	Units	Dollars
OCT89	1501	371
NOV89	1017	316
DEC89	618	280
JAN90	2252	357
FEB90	900	305
MAR90	3010	252
APR90	1212	206
MAY90	1301	335
JUN90	917	79
JUL90	1234	391
AUG90	1311	386
SEP90	1751	437
OCT90	1742	372
NOV90	1029	353
DEC90	1260	223
JAN91	1521	374
FEB91	1426	286
MAR91	1131	240
APR91	1354	390
MAY91	1527	330
JUN91	1454	318

Cost Center RP			Cost Center SP		
PHIL	Units	Dollars	PHIL	Units	Dollars
OCT89	--	--	OCT89	886	24
NOV89	--	--	NOV89	903	23
DEC89	--	--	DEC89	807	17
JAN90	--	--	JAN90	1438	21
FEB90	--	--	FEB90	1239	24
MAR90	--	--	MAR90	886	17
APR90	--	--	APR90	1087	14
MAY90	--	--	MAY90	1321	23
JUN90	--	--	JUN90	921	14
JUL90	--	--	JUL90	997	17
AUG90	--	--	AUG90	695	17
SEP90	--	--	SEP90	1249	21
OCT90	0	0	OCT90	2033	15
NOV90	0	0	NOV90	592	23
DEC90	0	1	DEC90	1315	12
JAN91	0	0	JAN91	647	28
FEB91	0	0	FEB91	775	11
MAR91	0	7	MAR91	849	2
APR91	0	0	APR91	665	16
MAY91	0	0	MAY91	1047	14
JUN91	0	0	JUN91	673	13

N. NSC PUGET SOUND

Cost Center CO			Cost Center CP		
PUGET	Units	Dollars	PUGET	Units	Dollars
OCT89	--	--	OCT89	5667	17
NOV89	--	--	NOV89	5627	15
DEC89	--	--	DEC89	5643	15
JAN90	--	--	JAN90	5637	18
FEB90	--	--	FEB90	5645	12
MAR90	--	--	MAR90	8412	18
APR90	--	--	APR90	5556	18
MAY90	--	--	MAY90	5534	15
JUN90	--	--	JUN90	5530	19
JUL90	--	--	JUL90	5552	16
AUG90	--	--	AUG90	8419	17
SEP90	--	--	SEP90	5633	15
OCT90	0	44	OCT90	5073	20
NOV90	0	27	NOV90	4478	19
DEC90	0	14	DEC90	4510	13
JAN91	0	30	JAN91	4505	16
FEB91	0	22	FEB91	4510	17
MAR91	0	27	MAR91	4513	20
APR91	0	37	APR91	4472	18
MAY91	0	35	MAY91	2268	18
JUN91	0	35	JUN91	0	13

Cost Center DP

PUGET	Units	Dollars
OCT89	0	281
NOV89	--	305
DEC89	--	187
JAN90	--	299
FEB90	--	197
MAR90	--	760
APR90	--	182
MAY90	--	266
JUN90	--	316
JUL90	--	251
AUG90	--	304
SEP90	--	286
OCT90	0	438
NOV90	0	273
DEC90	0	455
JAN91	0	317
FEB91	0	240
MAR91	0	314
APR91	0	322
MAY91	0	222
JUN91	0	221

Cost Center FO

PUGET	Units	Dollars
OCT89	1567	58
NOV89	1356	55
DEC89	1167	58
JAN90	2120	61
FEB90	1953	44
MAR90	1184	63
APR90	993	48
MAY90	1249	67
JUN90	1611	53
JUL90	2977	96
AUG90	2693	84
SEP90	1160	51
OCT90	2118	76
NOV90	2372	80
DEC90	1123	52
JAN91	1666	80
FEB91	1668	80
MAR91	1450	87
APR91	1243	86
MAY91	1320	109
JUN91	1521	52

Cost Center GA

PUGET	Units	Dollars
OCT89	--	945
NOV89	--	531
DEC89	--	496
JAN90	--	848
FEB90	--	430
MAR90	--	520
APR90	--	476
MAY90	--	985
JUN90	--	333
JUL90	--	686
AUG90	--	243
SEP90	--	719
OCT90	0	634
NOV90	0	1081
DEC90	0	680
JAN91	0	719
FEB91	0	376
MAR91	0	233
APR91	0	453
MAY91	0	452
JUN91	0	673

Cost Center LP

PUGET	Units	Dollars
OCT89	320	105
NOV89	260	123
DEC89	253	93
JAN90	426	134
FEB90	318	101
MAR90	336	124
APR90	472	119
MAY90	311	127
JUN90	303	114
JUL90	235	111
AUG90	243	117
SEP90	716	136
OCT90	213	123
NOV90	153	121
DEC90	342	89
JAN91	398	106
FEB91	513	122
MAR91	263	132
APR91	425	147
MAY91	385	169
JUN91	586	146

Cost Center MA

PUGET	Units	Dollars
OCT89	249963	24
NOV89	91977	20
DEC89	87529	18
JAN90	79528	23
FEB90	94350	18
MAR90	83967	23
APR90	86839	21
MAY90	103577	23
JUN90	121355	17
JUL90	89326	23
AUG90	96044	23
SEP90	88481	18
OCT90	235172	19
NOV90	86188	20
DEC90	75894	18
JAN91	85074	20
FEB91	103547	18
MAR91	86497	22
APR91	123106	22
MAY91	85106	26
JUN91	81667	17

Cost Center PD

PUGET	Units	Dollars
OCT89	68895	638
NOV89	42467	688
DEC89	39199	549
JAN90	52161	749
FEB90	47593	537
MAR90	48815	664
APR90	57120	674
MAY90	52303	654
JUN90	47507	674
JUL90	44814	530
AUG90	53413	647
SEP90	44389	611
OCT90	57154	776
NOV90	49308	634
DEC90	42523	520
JAN91	57992	711
FEB91	45572	596
MAR91	50923	720
APR91	51802	747
MAY91	44378	782
JUN91	39217	553

Cost Center PP

PUGET	Units	Dollars
OCT89	1364	26
NOV89	1348	28
DEC89	1158	21
JAN90	1673	32
FEB90	1273	27
MAR90	1563	30
APR90	1536	29
MAY90	1844	30
JUN90	1765	27
JUL90	1771	29
AUG90	1709	32
SEP90	1525	26
OCT90	1534	32
NOV90	1374	25
DEC90	1151	27
JAN91	1677	32
FEB91	1404	28
MAR91	1276	28
APR91	1507	26
MAY91	1781	30
JUN91	1659	24

Cost Center RP

PUGET	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	77
NOV90	0	113
DEC90	0	52
JAN91	0	206
FEB91	0	70
MAR91	0	58
APR91	0	68
MAY91	0	149
JUN91	0	65

Cost Center SM			Cost Center SP		
PUGET	Units	Dollars	PUGET	Units	Dollars
OCT89	164915	1	OCT89	9639	157
NOV89	148446	117	NOV89	10308	185
DEC89	154549	2	DEC89	10532	145
JAN90	136351	2	JAN90	13490	200
FEB90	171982	1	FEB90	11923	155
MAR90	162529	1	MAR90	14334	186
APR90	164626	2	APR90	12990	177
MAY90	106012	1	MAY90	14554	181
JUN90	121548	1	JUN90	13365	164
JUL90	134570	1	JUL90	8785	173
AUG90	121905	2	AUG90	14643	202
SEP90	100227	1	SEP90	15395	190
OCT90	147916	1	OCT90	7743	167
NOV90	153505	1	NOV90	8518	149
DEC90	96423	1	DEC90	10981	137
JAN91	108189	117	JAN91	13318	190
FEB91	154997	1	FEB91	11553	192
MAR91	128779	2	MAR91	14404	215
APR91	129719	-9	APR91	14064	199
MAY91	145648	1	MAY91	15504	246
JUN91	127061	2	JUN91	15559	165

0. NSC SAN DIEGO

Cost Center AH			Cost Center CP		
SAN	Units	Dollars	SAN	Units	Dollars
OCT89	25610	127	OCT89	69876	78
NOV89	24108	146	NOV89	46401	59
DEC89	23991	149	DEC89	46356	67
JAN90	25765	121	JAN90	46304	76
FEB90	23863	158	FEB90	46399	79
MAR90	29537	181	MAR90	46163	77
APR90	25342	124	APR90	45955	66
MAY90	26258	170	MAY90	68610	74
JUN90	26453	170	JUN90	45709	69
JUL90	24843	110	JUL90	45644	73
AUG90	26708	143	AUG90	45517	77
SEP90	21754	149	SEP90	45317	63
OCT90	25798	162	OCT90	64255	73
NOV90	21642	194	NOV90	38613	71
DEC90	18430	124	DEC90	38382	65
JAN91	21780	129	JAN91	38087	74
FEB91	20035	105	FEB91	37981	70
MAR91	20716	137	MAR91	37750	74
APR91	22861	159	APR91	56583	75
MAY91	20832	126	MAY91	38994	77
JUN91	20663	108	JUN91	39351	65

Cost Center DB

SAN	Units	Dollars
OCT89	16687	12
NOV89	10097	11
DEC89	9761	9
JAN90	9074	12
FEB90	8791	9
MAR90	8584	11
APR90	8866	10
MAY90	12429	13
JUN90	8390	11
JUL90	9196	10
AUG90	9373	9
SEP90	10608	9
OCT90	14491	8
NOV90	6528	10
DEC90	6277	8
JAN91	6109	8
FEB91	6035	9
MAR91	6125	9
APR91	8797	11
MAY91	5742	13
JUN91	5624	13

Cost Center DP

SAN	Units	Dollars
OCT89	--	556
NOV89	--	460
DEC89	--	895
JAN90	--	544
FEB90	--	423
MAR90	--	460
APR90	--	510
MAY90	--	435
JUN90	--	349
JUL90	--	462
AUG90	--	468
SEP90	--	484
OCT90	0	697
NOV90	0	467
DEC90	0	951
JAN91	0	538
FEB91	0	422
MAR91	0	424
APR91	0	558
MAY91	0	475
JUN91	0	457

Cost Center FO

SAN	Units	Dollars
OCT89	2534	59
NOV89	1619	54
DEC89	2808	47
JAN90	2584	52
FEB90	2159	44
MAR90	3889	53
APR90	4867	53
MAY90	4026	59
JUN90	3337	50
JUL90	2844	52
AUG90	2080	58
SEP90	2163	60
OCT90	3124	59
NOV90	3253	50
DEC90	2450	52
JAN91	4817	67
FEB91	2910	49
MAR91	2699	43
APR91	4208	48
MAY91	3398	62
JUN91	2670	45

Cost Center GA

SAN	Units	Dollars
OCT89	--	1021
NOV89	0	1430
DEC89	--	926
JAN90	--	1423
FEB90	--	362
MAR90	--	344
APR90	--	1260
MAY90	--	325
JUN90	--	406
JUL90	--	1377
AUG90	--	527
SEP90	--	2098
OCT90	0	747
NOV90	0	729
DEC90	0	463
JAN91	0	1296
FEB91	0	213
MAR91	0	199
APR91	0	1045
MAY91	0	390
JUN91	0	1410

Cost Center MA

SAN	Units	Dollars
OCT89	229911	51
NOV89	278810	39
DEC89	189822	37
JAN90	285658	44
FEB90	187353	36
MAR90	238621	43
APR90	259073	39
MAY90	253492	44
JUN90	204040	36
JUL90	180051	34
AUG90	248853	45
SEP90	167242	33
OCT90	267506	35
NOV90	210053	42
DEC90	160992	39
JAN91	198250	29
FEB91	189881	37
MAR91	172864	36
APR91	188689	38
MAY91	239572	39
JUN91	171401	33

Cost Center PD

SAN	Units	Dollars
OCT89	184709	1881
NOV89	190683	1458
DEC89	165619	1441
JAN90	201325	1771
FEB90	185506	1478
MAR90	219506	1679
APR90	211776	1835
MAY90	203634	1729
JUN90	190009	1504
JUL90	181611	1625
AUG90	204606	1824
SEP90	175900	1503
OCT90	190317	1828
NOV90	200506	1794
DEC90	174109	1423
JAN91	188121	1878
FEB91	163328	1628
MAR91	168898	1414
APR91	180594	1910
MAY91	184368	1552
JUN91	158730	2404

Cost Center PP

SAN	Units	Dollars
OCT89	5732	116
NOV89	6450	93
DEC89	5554	90
JAN90	6271	93
FEB90	5774	85
MAR90	6060	92
APR90	5978	97
MAY90	6949	110
JUN90	7213	96
JUL90	7246	119
AUG90	7236	104
SEP90	5636	90
OCT90	5905	87
NOV90	5335	92
DEC90	5208	108
JAN91	5566	93
FEB91	5541	104
MAR91	6466	94
APR91	6378	89
MAY91	7719	105
JUN91	8046	89

Cost Center RP

SAN	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	192
NOV90	0	228
DEC90	0	166
JAN91	0	130
FEB91	0	179
MAR91	0	138
APR91	0	140
MAY91	0	64
JUN91	0	179

Cost Center SM			Cost Center SP		
SAN	Units	Dollars	SAN	Units	Dollars
OCT89	898905	14	OCT89	12173	252
NOV89	998044	7	NOV89	10610	165
DEC89	719821	557	DEC89	10346	161
JAN90	1537933	12	JAN90	13116	190
FEB90	853275	13	FEB90	11330	176
MAR90	918411	13	MAR90	11548	216
APR90	1287131	65	APR90	10544	177
MAY90	1165001	16	MAY90	12494	196
JUN90	1016019	12	JUN90	13572	208
JUL90	1120972	11	JUL90	13210	185
AUG90	1451868	12	AUG90	15077	237
SEP90	1478832	61	SEP90	13956	190
OCT90	1298980	15	OCT90	9692	187
NOV90	1112351	13	NOV90	10057	182
DEC90	874847	106	DEC90	9276	176
JAN91	1697735	59	JAN91	9725	215
FEB91	1056423	101	FEB91	10914	176
MAR91	1006614	367	MAR91	8679	198
APR91	1234550	14	APR91	6021	185
MAY91	1383393	15	MAY91	9012	200
JUN91	984948	-8	JUN91	9599	174

P. SDCC

Cost Center GA			Cost Center LP		
SDCC	Units	Dollars	SDCC	Units	Dollars
OCT89	--	226	OCT89	1219	416
NOV89	--	325	NOV89	693	302
DEC89	--	313	DEC89	1014	324
JAN90	--	325	JAN90	998	399
FEB90	--	301	FEB90	752	354
MAR90	--	273	MAR90	991	425
APR90	--	259	APR90	747	381
MAY90	--	304	MAY90	831	389
JUN90	--	221	JUN90	1257	352
JUL90	--	331	JUL90	742	361
AUG90	--	207	AUG90	1011	381
SEP90	--	--	SEP90	1848	348
OCT90	0	322	OCT90	1274	348
NOV90	0	277	NOV90	607	326
DEC90	0	378	DEC90	1091	315
JAN91	0	0	JAN91	467	345
FEB91	0	0	FEB91	823	357
MAR91	0	323	MAR91	913	394
APR91	0	323	APR91	623	408
MAY91	0	313	MAY91	816	406
JUN91	0	0	JUN91	0	0

Cost Center RP		
SDCC	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	0
NOV90	0	0
DEC90	0	0
JAN91	0	0
FEB91	0	0
MAR91	0	0
APR91	0	0
MAY91	0	0
JUN91	0	0

Q. SHIPS PARTS CONTROL CENTER

Cost Center AP			Cost Center CP		
SPCC	Units	Dollars	SPCC	Units	Dollars
OCT89	16694	227	OCT89	12693	23
NOV89	16694	228	NOV89	12694	23
DEC89	18281	200	DEC89	12678	23
JAN90	17143	195	JAN90	12588	25
FEB90	18992	244	FEB90	12480	27
MAR90	18785	231	MAR90	18729	26
APR90	14401	207	APR90	12404	27
MAY90	14654	197	MAY90	12411	23
JUN90	21250	196	JUN90	12417	23
JUL90	14248	164	JUL90	12450	31
AUG90	20254	177	AUG90	18592	34
SEP90	13821	129	SEP90	12189	37
OCT90	14352	260	OCT90	12208	34
NOV90	14941	223	NOV90	12178	33
DEC90	18697	167	DEC90	17437	24
JAN91	15615	218	JAN91	11634	32
FEB91	17874	212	FEB91	11625	30
MAR91	17698	230	MAR91	11632	24
APR91	16260	331	APR91	11527	29
MAY91	16972	254	MAY91	11507	36
JUN91	16324	188	JUN91	17458	18

Cost Center DB

SPCC	Units	Dollars
OCT89	10302	25
NOV89	10302	24
DEC89	8195	25
JAN90	7513	21
FEB90	6752	29
MAR90	9712	28
APR90	7453	24
MAY90	9200	26
JUN90	7248	22
JUL90	7462	20
AUG90	7518	21
SEP90	7581	19
OCT90	7929	19
NOV90	7860	16
DEC90	5778	14
JAN91	5570	17
FEB91	4688	16
MAR91	6536	15
APR91	4583	17
MAY91	6094	17
JUN91	4472	9

Cost Center DP

SPCC	Units	Dollars
OCT89	--	1291
NOV89	--	1291
DEC89	--	1290
JAN90	--	1569
FEB90	--	1174
MAR90	--	1116
APR90	--	745
MAY90	--	1177
JUN90	--	1277
JUL90	--	712
AUG90	--	1171
SEP90	--	1223
OCT90	0	1310
NOV90	0	1268
DEC90	0	1169
JAN91	0	1504
FEB91	0	1051
MAR91	0	1248
APR91	0	1239
MAY91	0	1197
JUN91	0	732

Cost Center GA

SPCC	Units	Dollars
OCT89	--	4851
NOV89	--	4851
DEC89	--	4837
JAN90	--	4638
FEB90	--	4633
MAR90	--	4679
APR90	--	4421
MAY90	--	4268
JUN90	--	4162
JUL90	--	4874
AUG90	--	4176
SEP90	--	4968
OCT90	0	5380
NOV90	0	4665
DEC90	0	5068
JAN91	0	4892
FEB91	0	3482
MAR91	0	3721
APR91	0	3369
MAY91	0	3260
JUN91	0	4397

Cost Center IC

SPCC	Units	Dollars
OCT89	63897	1163
NOV89	63896	1162
DEC89	63875	1241
JAN90	63863	1226
FEB90	63855	1475
MAR90	63831	1691
APR90	64141	1179
MAY90	64144	1316
JUN90	64345	1241
JUL90	64451	1187
AUG90	64827	1397
SEP90	64177	1346
OCT90	64299	1423
NOV90	64395	1412
DEC90	63924	1066
JAN91	64058	1335
FEB91	64235	1394
MAR91	64244	1423
APR91	64534	1468
MAY91	64325	1591
JUN91	64276	1119

Cost Center IF

SPCC	Units	Dollars
OCT89	128031	897
NOV89	106054	698
DEC89	66060	801
JAN90	90313	787
FEB90	50836	987
MAR90	157961	986
APR90	56786	848
MAY90	61459	843
JUN90	95795	862
JUL90	68770	778
AUG90	97480	822
SEP90	79331	799
OCT90	100306	1056
NOV90	86159	944
DEC90	67824	688
JAN91	120135	947
FEB91	111922	909
MAR91	66933	983
APR91	55815	968
MAY91	55583	1090
JUN91	69867	743

Cost Center LP

SPCC	Units	Dollars
OCT89	1552	646
NOV89	943	647
DEC89	1245	526
JAN90	855	541
FEB90	1397	777
MAR90	1736	677
APR90	1113	649
MAY90	1856	672
JUN90	1713	613
JUL90	1429	533
AUG90	1799	570
SEP90	3262	639
OCT90	802	723
NOV90	380	578
DEC90	1451	476
JAN91	1107	600
FEB91	1389	683
MAR91	1634	678
APR91	1606	714
MAY91	1472	830
JUN91	1116	503

Cost Center MA

SPCC	Units	Dollars
OCT89	708941	322
NOV89	708941	322
DEC89	535423	294
JAN90	741783	296
FEB90	719054	370
MAR90	629678	369
APR90	550101	340
MAY90	628711	368
JUN90	559801	325
JUL90	689638	321
AUG90	899414	367
SEP90	649426	341
OCT90	805658	352
NOV90	786793	352
DEC90	594952	242
JAN91	651930	326
FEB91	592617	348
MAR91	607807	350
APR91	557728	377
MAY91	618901	408
JUN91	542699	295

Cost Center PR

SPCC	Units	Dollars
OCT89	35927	104
NOV89	35927	103
DEC89	16574	89
JAN90	33339	91
FEB90	24001	112
MAR90	31423	121
APR90	47368	51
MAY90	22141	82
JUN90	36156	87
JUL90	26696	83
AUG90	19078	151
SEP90	25680	99
OCT90	13776	91
NOV90	34061	102
DEC90	29687	87
JAN91	134953	85
FEB91	146977	81
MAR91	83537	95
APR91	30372	85
MAY91	45348	104
JUN91	20816	84

Cost Center QT

SPCC	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	394
NOV90	0	270
DEC90	0	263
JAN91	0	284
FEB91	0	331
MAR91	0	330
APR91	0	337
MAY91	0	373
JUN91	0	272

Cost Center RP

SPCC	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	202
NOV90	0	161
DEC90	0	106
JAN91	0	173
FEB91	0	178
MAR91	0	200
APR91	0	280
MAY91	0	266
JUN91	0	149

Cost Center SP

SPCC	Units	Dollars
OCT89	2780	271
NOV89	4789	272
DEC89	4032	211
JAN90	4752	218
FEB90	4431	294
MAR90	5784	298
APR90	5578	284
MAY90	5141	311
JUN90	4354	309
JUL90	5039	297
AUG90	6259	335
SEP90	7875	290
OCT90	3319	273
NOV90	4346	251
DEC90	4344	228
JAN91	5376	297
FEB91	6472	295
MAR91	7089	335
APR91	7143	317
MAY91	5854	326
JUN91	4454	264

R. NRFC WASHINGTON D.C.

Cost Center GA

WASH	Units	Dollars
OCT89	--	264
NOV89	0	129
DEC89	--	112
JAN90	--	244
FEB90	--	115
MAR90	--	154
APR90	--	246
MAY90	--	313
JUN90	--	130
JUL90	--	241
AUG90	--	169
SEP90	--	301
OCT90	0	269
NOV90	0	145
DEC90	0	163
JAN91	0	0
FEB91	0	0
MAR91	0	120
APR91	0	261
MAY91	0	142
JUN91	0	0

Cost Center LP

WASH	Units	Dollars
OCT89	1756	315
NOV89	638	249
DEC89	533	220
JAN90	924	265
FEB90	597	201
MAR90	1361	229
APR90	930	252
MAY90	556	141
JUN90	687	89
JUL90	468	158
AUG90	628	156
SEP90	1212	155
OCT90	1187	365
NOV90	679	242
DEC90	813	255
JAN91	724	330
FEB91	662	210
MAR91	704	201
APR91	468	219
MAY91	624	152
JUN91	0	0

Cost Center RP

WASH	Units	Dollars
OCT89	--	--
NOV89	--	--
DEC89	--	--
JAN90	--	--
FEB90	--	--
MAR90	--	--
APR90	--	--
MAY90	--	--
JUN90	--	--
JUL90	--	--
AUG90	--	--
SEP90	--	--
OCT90	0	0
NOV90	0	0
DEC90	0	0
JAN91	0	0
FEB91	0	0
MAR91	0	0
APR91	0	0
MAY91	0	0
JUN91	0	0

Cost Center SP

WASH	Units	Dollars
OCT89	1817	38
NOV89	2816	35
DEC89	3059	31
JAN90	1781	42
FEB90	1652	33
MAR90	2275	35
APR90	1442	45
MAY90	1772	39
JUN90	1901	36
JUL90	1883	40
AUG90	2563	39
SEP90	2376	38
OCT90	1959	41
NOV90	2284	27
DEC90	1411	33
JAN91	480	46
FEB91	2135	28
MAR91	1662	30
APR91	1350	40
MAY91	1686	33
JUN91	0	0

APPENDIX C

Critical Values for the t Distribution for a two tailed test with a rejection region of .05, of the data analyzed.

Number of Observations	Degrees of Freedom	Critical Values .05 level two-tailed test
3	1	12.706
4	2	4.303
5	3	3.182
6	4	2.776
7	5	2.571
8	6	2.447
9	7	2.365
10	8	2.306
11	9	2.262
12	10	2.228
13	11	2.201
14	12	2.179
15	13	2.160
16	14	2.145
17	16	2.131
18	17	2.120
19	18	2.110
20	19	2.101
21	20	2.093

Source: [Ref 5: p.635]

APPENDIX D

Each page in this appendix consists of a unique cost center with its associated Units and Dollars columns from Appendix A. The two columns to the right of Units and Dollars and beginning with the OCT90 row represent the deseasonalized Units and Dollars columns, respectively. The figure just under "AVG" is the average monthly productive units of fiscal year 1990. The column labeled INDEX depicts the monthly seasonal index for that particular cost center. The two tables contained in the middle of the page contain the regression output for fiscal year 1991 data only. Although zeros and negative values may be shown in the data they were ignored in the analyses.

Cost Center FR

NPFC	Units	Dollars		
OCT89	38005	93		
NOV89	31360	57		
DEC89	102424	80		
JAN90	130544	41		
FEB90	101487	67		
MAR90	87379	83		
APR90	75446	69		
MAY90	108317	75		
JUN90	103627	45		
JUL90	117025	101		
AUG90	91957	46		
SEP90	101204	77		
OCT90	0	0	0.0000	0.0000
NOV90	184179	158	532869.6076	457.1281
DEC90	122845	65	108820.9834	57.5796
JAN91	65743	67	45692.9814	46.5666
FEB91	92864	75	83022.1289	67.0514
MAR91	111270	80	115538.8158	83.0692
APR91	13216	8	15893.5424	9.6208
MAY91	74956	102	62786.5577	85.4398
JUN91	98425	61	86176.6073	53.4089

AVG
90731.25

INDEX	
0.41887442	OCT
0.34563615	NOV
1.12887235	DEC
1.43879864	JAN
1.11854515	FEB
0.96305297	MAR
0.83153268	APR
1.19382241	MAY
1.14213129	JUN
1.28979816	JUL
1.01350967	AUG
1.11542605	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-5.0979832415
Std Err of Y Est	21.706504815
R Squared	0.9803227973
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.000857
Std Err of Coef.	0.000049
t statistic	17.28934

Y= -5.0979832415 + 0.0008571062 X

Unseasonalized Data for FY 91
Regression Output:

Constant	7.6362740707
Std Err of Y Est	24.166880404
R Squared	0.7187617455
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.000726
Std Err of Coef.	0.000185
t statistic	3.915893

Y= 7.6362740707 + 0.0007267993 X

Cost Center LP

ASO	Units	Dollars		
OCT89	0	575		
NOV89	160	611		
DEC89	258	479		
JAN90	2024	617		
FEB90	3414	645		
MAR90	1895	729		
APR90	1599	646		
MAY90	2270	664		
JUN90	2608	595		
JUL90	4575	482		
AUG90	3468	612		
SEP90	10255	16		
OCT90	1701	733		
NOV90	1403	705	25010.66	12567.72
DEC90	616	428	6810.023	4731.639
JAN91	2484	750	3500.488	1056.910
FEB91	2168	597	1811.270	498.7677
MAR91	3142	603	4729.165	907.6025
APR91	1983	847	3537.218	1510.854
MAY91	2226	683	2796.964	858.1879
JUN91	1739	511	1901.864	558.8572

AVG
2852.25

INDEX
-- OCT
0.05609606 NOV
0.09045490 DEC
0.70961521 JAN
1.19694977 FEB
0.66438776 MAR
0.56061004 APR
0.79586291 MAY
0.91436585 JUN
1.60399684 JUL
1.21588219 AUG
3.59540713 SEP
0.59637128 OCT

Deseasonalized Data for FY 91
Regression Output:

Constant		-475.77752
Std Err of Y Est		816.383616
R Squared		0.96708719
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.528902	
Std Err of Coef.	0.039833	
t	13.27779	

Y= -475.777 + 0.52890225 X

Unseasonalized Data for FY 91
Regression Output:

Constant		491.724168
Std Err of Y Est		131.208251
R Squared		0.17906256
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.075515	
Std Err of Coef.	0.066010	
t	1.143992	

Y= 491.7241 + 0.07551593 X

Cost Center LP

PEARL	Units	Dollars		
OCT89	381	84		
NOV89	45	69		
DEC89	8	60		
JAN90	112	73		
FEB90	127	80		
MAR90	192	73		
APR90	152	77		
MAY90	194	85		
JUN90	158	83		
JUL90	164	72		
AUG90	183	94		
SEP90	223	109		
OCT90	234	100	99.2402	42.4103
NOV90	75	89	269.3056	319.5759
DEC90	124	68	2504.5417	1373.4583
JAN91	40	93	57.7083	134.1719
FEB91	115	95	146.3156	120.8694
MAR91	52	91	43.7622	76.5838
APR91	91	90	96.7374	95.6743
MAY91	92	98	76.6271	81.6246
JUN91	387	90	395.7769	92.0411

AVG
161.583333

INDEX	
2.35791645	OCT
0.27849406	NOV
0.04951005	DEC
0.69314079	JAN
0.78597215	FEB
1.18824136	MAR
0.94069107	APR
1.20061887	MAY
0.97782362	JUN
1.01495616	JUL
1.13254254	AUG
1.38009283	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	43.816095091
Std Err of Y Est	84.764269396
R Squared	0.9652310377
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.5263027
Std Err of Coef.	0.0377543
t statistic	13.940193

Y= 43.816095091 + 0.5263027078 X

Unseasonalized Data for FY 91
Regression Output:

Constant	89.776913397
Std Err of Y Est	9.8548605651
R Squared	0.0035095381
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.0049651
Std Err of Coef.	0.0316221
t statistic	0.1570136

Y= 89.776913397 + 0.004965107 X

Cost Center CP

NRFC	Units	Dollars		
OCT89	86884	151		
NOV89	85762	131		
DEC89	128965	192		
JAN90	86093	118		
FEB90	85538	156		
MAR90	84822	134		
APR90	84120	131		
MAY90	83650	134		
JUN90	83588	210		
JUL90	102107	92		
AUG90	83357	126		
SEP90	103209	164		
OCT90	54647	105	57555.2820	110.5880
NOV90	67939	129	72490.8042	137.6428
DEC90	109265	186	77529.6593	131.9775
JAN91	72805	131	77384.1529	139.2394
FEB91	76413	131	81746.0595	140.1428
MAR91	71152	135	76760.4075	145.6411
APR91	71022	134	77259.5727	145.7687
MAY91	70851	136	77506.6038	148.7756
JUN91	107324	205	117492.8895	224.4236

AVG
91507.9166

Deseasonalized Data for FY 91
Regression Output:

INDEX		
0.94946976	OCT	Constant -5.2344796884
0.93720852	NOV	Std Err of Y Est 7.4670964492
1.40933161	DEC	R Squared 0.94961943
0.94082570	JAN	No. of Observations 9
0.93476065	FEB	Degrees of Freedom 7
0.92693619	MAR	X Coefficient(s) 0.001915
0.91926472	APR	Std Err of Coef. 0.000166
0.91412855	MAY	t statistic 11.48662
0.91345102	JUN	
1.11582695	JUL	Y= -5.2344796884 + 0.0019159719 X
0.91092665	AUG	
1.12786962	SEP	

Unseasonalized Data for FY 91
Regression Output:

Constant	13.4726991921
Std Err of Y Est	7.5707705512
R Squared	0.9486425302
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.001669
Std Err of Coef.	0.000146
t statistic	11.37099

Y= 13.4726991921 + 0.0016691127 X

Cost Center IC

NPFC	Units	Dollars		
OCT89	9167	80		
NOV89	9093	102		
DEC89	9110	72		
JAN90	9062	86		
FEB90	9025	82		
MAR90	9049	119		
APR90	9078	116		
MAY90	8945	141		
JUN90	8719	92		
JUL90	8992	97		
AUG90	9019	110		
SEP90	8797	57		
OCT90	0	0	0.0000	0.0000
NOV90	17661	195	17489.4334	193.1057
DEC90	8326	67	8229.7316	66.2253
JAN91	8430	93	8376.6652	92.4116
FEB91	8565	69	8545.7030	68.8445
MAR91	8260	88	8219.5322	87.5689
APR91	8491	94	8422.4085	93.2407
MAY91	8486	94	8542.6050	94.6270
JUN91	8391	72	8665.9202	74.3590

AVG
9004.66666

INDEX	
1.01802768	OCT
1.00980972	NOV
1.01169763	DEC
1.00636706	JAN
1.00225808	FEB
1.00492337	MAR
1.00814392	APR
0.99337380	MAY
0.96827570	JUN
0.99859332	JUL
1.00159176	AUG
0.97693788	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		-20.109939597
Std Err of Y Est		12.5338071323
R Squared		0.9188450622
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.012174	
Std Err of Coef.	0.001477	
t statistic	8.242126	

Y= -20.109939597 + 0.0121746354 X

Unseasonalized Data for FY 91
Regression Output:

Constant		-20.146436541
Std Err of Y Est		12.4681832404
R Squared		0.9224402495
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.012180	
Std Err of Coef.	0.001441	
t statistic	8.447467	

Y= -20.146436541 + 0.0121808053 X

Cost Center LP

OAK	Units	Dollars		
OCT89	89	55		
NOV89	9	49		
DEC89	27	44		
JAN90	103	45		
FEB90	63	58		
MAR90	77	17		
APR90	60	49		
MAY90	41	39		
JUN90	49	43		
JUL90	60	48		
AUG90	50	60		
SEP90	230	42		
OCT90	25	49	20.0843	39.3652
NOV90	55	51	436.9444	405.1667
DEC90	13	36	34.4259	95.3333
JAN91	84	49	58.3107	34.0146
FEB91	18	43	20.4286	48.8016
MAR91	114	45	105.8571	41.7857
APR91	59	53	70.3083	63.1583
MAY91	94	67	163.9268	116.8415
JUN91	0	49	0.0000	71.5000

AVG

71.5

INDEX	
1.24475524	OCT
0.12587412	NOV
0.37762237	DEC
1.44055944	JAN
0.88111888	FEB
1.07692307	MAR
0.83916083	APR
0.57342657	MAY
0.68531468	JUN
0.83916083	JUL
0.69930069	AUG
3.21678321	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	8.3267767042
Std Err of Y Est	39.675110368
R Squared	0.9130188143
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.854514
Std Err of Coef.	0.107675
t statistic	7.936021

Y= 8.3267767042 + 0.8545143487 X

Unseasonalized Data for FY 91
Regression Output:

Constant	41.798682805
Std Err of Y Est	8.2325125568
R Squared	0.2801140465
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.126862
Std Err of Coef.	0.083027
t statistic	1.527957

Y= 41.798682805 + 0.1268626354 X

Cost Center SP

OAK	Units	Dollars		
OCT89	3565	98		
NOV89	5047	102		
DEC89	4472	91		
JAN90	4955	94		
FEB90	4316	107		
MAR90	5363	137		
APR90	4535	113		
MAY90	3159	85		
JUN90	3911	121		
JUL90	3828	80		
AUG90	3972	112		
SEP90	5024	98		
OCT90	4409	100	5374.3834	121.8957
NOV90	3131	105	2695.8632	90.4074
DEC90	2829	78	2749.0285	75.7951
JAN91	4233	108	3712.3823	94.7171
FEB91	4179	104	4207.6443	104.7129
MAR91	4291	124	3476.9528	100.4759
APR91	4212	119	4036.0743	114.0296
MAY91	4450	119	6121.5087	163.6988
JUN91	0	100	0.0000	111.1118

AVG
4345.58333

INDEX	
0.82037317	OCT
1.16140909	NOV
1.02909083	DEC
1.14023817	JAN
0.99319232	FEB
1.23412660	MAR
1.04358831	APR
0.72694498	MAY
0.89999424	JUN
0.88089439	JUL
0.91403148	AUG
1.15611636	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		24.488253732
Std Err of Y Est		10.2018535554
R Squared		0.8731257895
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.020690	
Std Err of Coef.	0.003219	
t statistic	6.425802	

Y= 24.488253732 + 0.0206903623 X

Unseasonalized Data for FY 91
Regression Output:

Constant		40.426490871
Std Err of Y Est		10.9284734915
R Squared		0.5161041971
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.016814	
Std Err of Coef.	0.006646	
t statistic	2.529696	

Y= 40.426490871 + 0.016814397 X

Cost Center LP

NAP	Units	Dollars		
OCT89	456	143		
NOV89	192	142		
DEC89	329	134		
JAN90	788	139		
FEB90	365	145		
MAR90	866	148		
APR90	533	141		
MAY90	215	168		
JUN90	665	151		
JUL90	491	159		
AUG90	82	201		
SEP90	575	144		
OCT90	572	236	580.8852	239.6659
NOV90	373	214	899.6359	516.1450
DEC90	980	377	1379.3972	530.6456
JAN91	668	299	392.5630	175.7131
FEB91	429	207	544.2815	262.6253
MAR91	446	295	238.4933	157.7478
APR91	96	186	83.4071	161.6013
MAY91	303	154	652.6244	331.6969
JUN91	533	215	371.1630	149.7187

AVG
463.083333

INDEX	
0.98470397	OCT
0.41461220	NOV
0.71045528	DEC
1.70163757	JAN
0.78819506	FEB
1.87007378	MAR
1.15098074	APR
0.46427928	MAY
1.43602663	JUN
1.06028432	JUL
0.17707396	AUG
1.24167716	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	75.17378364
Std Err of Y Est	61.267945288
R Squared	0.8540190789
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.359555
Std Err of Coef.	0.056186
t statistic	6.399333

Y= 75.17378364 + 0.3595553426 X

Unseasonalized Data for FY 91
Regression Output:

Constant	126.547188161
Std Err of Y Est	38.451933047
R Squared	0.7271630344
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.237289
Std Err of Coef.	0.054937
t statistic	4.319299

Y= 126.547188161 + 0.2372898424 X

Cost Center FO

SAN	Units	Dollars		
OCT89	2534	59		
NOV89	1619	54		
DEC89	2808	47		
JAN90	2584	52		
FEB90	2159	44		
MAR90	3889	53		
APR90	4867	53		
MAY90	4026	59		
JUN90	3337	50		
JUL90	2844	52		
AUG90	2080	58		
SEP90	2163	60		
OCT90	3124	59	3586.5180	67.7351
NOV90	3253	50	5845.2867	89.8446
DEC90	2450	52	2538.2686	53.8735
JAN91	4817	67	5423.1640	75.4312
FEB91	2910	49	3921.1093	66.0256
MAR91	2699	43	2018.9871	32.1662
APR91	4208	48	2515.2606	28.6912
MAY91	3398	62	2455.3771	44.8009
JUN91	2670	45	2327.6820	39.2306

AVG
2909.16666

INDEX	
0.87103981	OCT
0.55651675	NOV
0.96522486	DEC
0.88822686	JAN
0.74213692	FEB
1.33680893	MAR
1.67298768	APR
1.38390146	MAY
1.14706387	JUN
0.97759954	JUL
0.71498138	AUG
0.74351188	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		8.7294060347
Std Err of Y Est		8.555253799
R Squared		0.8528566703
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.013686	
Std Err of Coef.	0.002148	
t statistic	6.369667	

Y= 8.7294060347 + 0.0136863011 X

Unseasonalized Data for FY 91
Regression Output:

Constant		32.203461303
Std Err of Y Est		6.957/9105157
R Squared		0.3576266468
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.006270	1 *
Std Err of Coef.	0.003176	0 *
t statistic	1.974104	

Y= 32.203461303 + 0.0062707456 X

Cost Center FR

GLAKE	Units	Dollars		
OCT89	160482	105		
NOV89	146624	102		
DEC89	179558	107		
JAN90	179558	108		
FEB90	209426	110		
MAR90	165783	107		
APR90	179250	98		
MAY90	168791	106		
JUN90	162523	94		
JUL90	145635	103		
AUG90	102215	97		
SEP90	114253	103		
OCT90	180859	110	179761.5154	109.3325
NOV90	225956	136	245811.2404	147.9506
DEC90	208091	106	184855.1104	94.1638
JAN91	222354	119	197525.4731	105.7122
FEB91	194469	110	148116.2495	83.7809
MAR91	198940	116	191410.1849	111.6094
APR91	214086	115	190507.4777	102.3344
MAY91	211780	110	200132.9427	103.9504
JUN91	0	0	0.0000	0.0000

AVG
159508.166

INDEX	
1.00610522	OCT
0.91922566	NOV
1.12569784	DEC
1.12569784	JAN
1.31294844	FEB
1.03933863	MAR
1.12376691	APR
1.05819660	MAY
1.01890080	JUN
0.91302535	JUL
0.64081358	AUG
0.71628307	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-14.939853670
Std Err of Y Est	7.825084052
R Squared	0.8493837681
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.000636
Std Err of Coef.	0.000109
t statistic	5.816901

Y= -14.939853670 + 0.0006360707 X

Unseasonalized Data for FY 91
Regression Output:

Constant	34.910363676
Std Err of Y Est	7.9210940953
R Squared	0.3863693725
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.000387
Std Err of Coef.	0.000199
t statistic	1.943674

Y= 34.910363676 + 0.0003879888 X

Cost Center SP

PEN	Units	Dollars		
OCT89	3302	45		
NOV89	2151	45		
DEC89	4404	42		
JAN90	4156	47		
FEB90	3233	43		
MAR90	4987	41		
APR90	3002	38		
MAY90	3444	41		
JUN90	2648	40		
JUL90	3273	45		
AUG90	4434	55		
SEP90	4516	66		
OCT90	3068	48	3371.9816	52.7559
NOV90	3993	51	6736.9886	86.0472
DEC90	3075	50	2533.9890	41.2031
JAN91	3475	50	3034.4933	43.6618
FEB91	2243	42	2517.8536	47.1466
MAR91	2638	47	1919.7397	34.2031
APR91	2856	53	3452.6649	64.0726
MAY91	4325	51	4557.5336	53.7420
JUN91	0	0	0.0000	0.0000

AVG
3629.16666

INDEX	
0.90985074	OCT
0.59269804	NOV
1.21350172	DEC
1.14516647	JAN
0.89083811	FEB
1.37414466	MAR
0.82718714	APR
0.94897818	MAY
0.72964408	JUN
0.90185993	JUL
1.22176808	AUG
1.24436280	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	18.51418549
Std Err of Y Est	6.845146774
R Squared	0.8462992163
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.0097676
Std Err of Coef.	0.0016993
t statistic	5.7477722

Y= 18.51418549 + 0.0097676926 X

Unseasonalized Data for FY 91
Regression Output:

Constant	38.886861851
Std Err of Y Est	2.7900353304
R Squared	0.4161777141
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.0031513
Std Err of Coef.	0.0015237
t statistic	2.0681150

Y= 38.886861851 + 0.0031513693 X

Cost Center PD

NPFC	Units	Dollars		
OCT89	162639	409		
NOV89	154851	327		
DEC89	121266	301		
JAN90	138920	341		
FEB90	147120	466		
MAR90	184296	277		
APR90	156738	391		
MAY90	144038	360		
JUN90	151208	135		
JUL90	144869	434		
AUG90	151590	298		
SEP90	108493	271		
OCT90	0	0	0.0000	0.0000
NOV90	302383	725	287382.0881	689.0335
DEC90	118600	233	143933.5296	282.7699
JAN91	141455	448	149854.5270	474.6020
FEB91	133832	404	133876.5743	404.1346
MAR91	176688	354	141093.6552	282.6856
APR91	183398	476	172201.3823	446.9398
MAY91	165446	407	169042.3525	415.8471
JUN91	128976	362	125530.8512	352.3304

AVG
147169

INDEX	
1.10511724	OCT
1.05219849	NOV
0.82399146	DEC
0.94394879	JAN
0.99966704	FEB
1.25227459	MAR
1.06502048	APR
0.97872513	MAY
1.02744463	JUN
0.98437170	JUL
1.03004029	AUG
0.73720008	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	52.780155958
Std Err of Y Est	66.52347524
R Squared	0.7761281678
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.002211
Std Err of Coef.	0.000484
t statistic	4.560816

Y= 52.780155958 + 0.0022118592 X

Unseasonalized Data for FY 91
Regression Output:

Constant	59.435007227
Std Err of Y Est	65.302989482
R Squared	0.8169212323
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.002171
Std Err of Coef.	0.000419
t statistic	5.174241

Y= 59.435007227 + 0.0021717262 X

Cost Center MA

NPFC	Units	Dollars		
OCT89	2791	12		
NOV89	5221	13		
DEC89	7953	16		
JAN90	10115	5		
FEB90	11583	13		
MAR90	11889	14		
APR90	14119	16		
MAY90	10472	8		
JUN90	10448	10		
JUL90	10125	3		
AUG90	9664	18		
SEP90	9547	11		
OCT90	0	0	0.0000	0.0000
NOV90	15473	23	28136.2522	41.8234
DEC90	3126	10	3731.6715	11.9375
JAN91	8578	7	8051.2919	6.5702
FEB91	18020	10	14769.9541	8.1964
MAR91	13010	10	10389.0870	7.9855
APR91	99494	67	66901.8872	45.0522
MAY91	13415	14	12162.0409	12.6924
JUN91	11198	9	10175.4287	8.1781

AVG
9493.91666

INDEX	
0.29397772	OCT
0.54993109	NOV
0.83769431	DEC
1.06541908	JAN
1.22004441	FEB
1.25227558	MAR
1.48716283	APR
1.10302211	MAY
1.10049417	JUN
1.06647239	JUL
1.01791498	AUG
1.00559129	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	4.8292557768
Std Err of Y Est	8.6994926194
R Squared	0.7459663505
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.000672
Std Err of Coef.	0.000160
t statistic	4.197489

Y= 4.8292557768 + 0.00067265 X

Unseasonalized Data for FY 91
Regression Output:

Constant	4.4990484643
Std Err of Y Est	4.94027044
R Squared	0.9482826657
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.000625
Std Err of Coef.	0.000059
t statistic	10.48881

Y= 4.4990484643 + 0.0006253366 X

Cost Center FR

CHASN	Units	Dollars		
OCT89	112809	107		
NOV89	94303	92		
DEC89	151065	78		
JAN90	139682	108		
FEB90	143820	97		
MAR90	149284	109		
APR90	155285	106		
MAY90	154732	114		
JUN90	140541	100		
JUL90	127563	104		
AUG90	166125	115		
SEP90	152337	103		
OCT90	146761	122	182953.7378	152.0864
NOV90	141075	91	210377.3227	135.7033
DEC90	129199	72	120273.4229	67.0260
JAN91	126695	102	127553.8011	102.6914
FEB91	127508	93	124678.7740	90.9365
MAR91	139408	103	131325.4227	97.0283
APR91	127178	102	115174.6387	92.3730
MAY91	139654	112	126925.1292	101.7917
JUN91	133356	103	133439.3430	103.0644

AVG
140628.833

INDEX	
0.80217546	OCT
0.67058083	NOV
1.07421071	DEC
0.99326714	JAN
1.02269212	FEB
1.06154617	MAR
1.10421878	APR
1.10028645	MAY
0.99937542	JUN
0.90708994	JUL
1.18130113	AUG
1.08325580	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	10.9007460559
Std Err of Y Est	13.699444433
R Squared	0.7394131913
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000663
Std Err of Coef.	0.000148
t statistic	4.456730

Y= 10.9007460559 + 0.000663623 X

Unseasonalized Data for FY 91
Regression Output:

Constant	-38.78393464
Std Err of Y Est	12.5524281886
R Squared	0.2965917258
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.001031
Std Err of Coef.	0.000600
t statistic	1.718006

Y= -38.78393464 + 0.0010315662 X

Cost Center LP

WASH	Units	Dollars		
OCT89	1756	315		
NOV89	638	249		
DEC89	533	220		
JAN90	924	265		
FEB90	597	201		
MAR90	1361	229		
APR90	930	252		
MAY90	556	141		
JUN90	687	89		
JUL90	468	158		
AUG90	628	156		
SEP90	1212	155		
OCT90	1187	365	579.6427	178.2389
NOV90	679	242	912.6058	325.2586
DEC90	813	255	1307.9690	410.2486
JAN91	724	330	671.8939	306.2500
FEB91	662	210	950.8626	301.6332
MAR91	704	201	443.5562	126.6403
APR91	468	219	431.5161	201.9274
MAY91	624	152	962.3741	234.4245
JUN91	0	0	0.0000	0.0000

AVG
857.5

INDEX	
2.04781341	OCT
0.74402332	NOV
0.62157434	DEC
1.07755102	JAN
0.69620991	FEB
1.58717201	MAR
1.08454810	APR
0.64839650	MAY
0.80116618	JUN
0.54577259	JUL
0.73236151	AUG
1.41341107	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	58.142793723
Std Err of Y Est	51.677629598
R Squared	0.7293299471
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.258685
Std Err of Coef.	0.064336
t statistic	4.020846

Y= 58.142793723 + 0.258685361 X

Unseasonalized Data for FY 91
Regression Output:

Constant	64.570709461
Std Err of Y Est	50.709265249
R Squared	0.5488126364
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.248666
Std Err of Coef.	0.092046
t statistic	2.701526

Y= 64.570709461 + 0.2486664945 X

Cost Center CP

NPFC	Units	Dollars		
OCT89	18095	42		
NOV89	18130	43		
DEC89	27039	48		
JAN90	17973	27		
FEB90	17838	40		
MAR90	17716	43		
APR90	17554	42		
MAY90	17461	38		
JUN90	26236	33		
JUL90	15731	39		
AUG90	17467	34		
SEP90	17312	30		
OCT90	0	0	0.0000	0.0000
NOV90	34286	89	36018.2656	93.4966
DEC90	25361	35	17864.0337	24.6536
JAN91	16882	50	17889.8666	52.9850
FEB91	16784	46	17920.6225	49.1151
MAR91	16691	42	17944.0498	45.1531
APR91	16731	36	18153.0492	39.0598
MAY91	16835	52	18363.1756	56.7202
JUN91	25395	37	18435.4768	26.8601

AVG
19046

INDEX	
0.95006825	OCT
0.95190591	NOV
1.41966817	DEC
0.94366271	JAN
0.93657460	FEB
0.93016906	MAR
0.92166334	APR
0.91678042	MAY
1.37750708	JUN
0.82594770	JUL
0.91709545	AUG
0.90895726	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-9.5888667726
Std Err of Y Est	12.5635015825
R Squared	0.7086015324
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.002858
Std Err of Coef.	0.000748
t statistic	3.819733

Y= -9.5888667726 + 0.0028584711 X

Unseasonalized Data for FY 91
Regression Output:

Constant	13.5960951501
Std Err of Y Est	15.0034837538
R Squared	0.378700639
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.001646
Std Err of Coef.	0.000861
t statistic	1.912375

Y= 13.5960951501 + 0.0016466797 X

Cost Center LP

PHIL	Units	Dollars		
OCT89	1501	371		
NOV89	1017	316		
DEC89	618	280		
JAN90	2252	357		
FEB90	900	305		
MAR90	3010	252		
APR90	1212	206		
MAY90	1301	335		
JUN90	917	79		
JUL90	1234	391		
AUG90	1311	386		
SEP90	1751	437		
OCT90	1742	372	1646.4473	351.5949
NOV90	1029	353	1435.4061	492.4182
DEC90	1260	223	2892.4272	511.9137
JAN91	1521	374	958.1670	235.6045
FEB91	1426	286	2247.7985	450.8207
MAR91	1131	240	533.0605	113.1163
APR91	1354	390	1584.8801	456.5017
MAY91	1527	330	1665.1068	359.8463
JUN91	1454	318	2249.4453	491.9695

AVG
1418.66666

INDEX	
1.05803571	OCT
0.71687030	NOV
0.43562030	DEC
1.58740601	JAN
0.63439849	FEB
2.12171052	MAR
0.85432330	APR
0.91705827	MAY
0.64638157	JUN
0.86983082	JUL
0.92410714	AUG
1.23425751	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	115.812383388
Std Err of Y Est	79.828035306
R Squared	0.6955554866
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.159174
Std Err of Coef.	0.039802
t statistic	3.999086

Y= 115.812383388 + 0.1591741214 X

Unseasonalized Data for FY 91
Regression Output:

Constant	159.48642793
Std Err of Y Est	57.947693893
R Squared	0.1802487762
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.116572
Std Err of Coef.	0.093961
t statistic	1.240635

Y= 159.48642793 + 0.1165720145 X

Cost Center SP

NAP	Units	Dollars		
OCT89	882	30		
NOV89	1783	30		
DEC89	1787	29		
JAN90	2206	22		
FEB90	1967	23		
MAR90	1691	23		
APR90	1275	24		
MAY90	1834	25		
JUN90	1544	35		
JUL90	1724	25		
AUG90	1615	27		
SEP90	2803	26		
OCT90	1484	26	2960.0079	51.8600
NOV90	2085	35	2057.2273	34.5330
DEC90	1667	43	1641.1135	42.3023
JAN91	1788	32	1425.9016	25.5195
FEB91	2114	34	1890.7242	30.4090
MAR91	1564	33	1627.1242	34.3319
APR91	1405	32	1938.6245	44.1537
MAY91	1415	26	1357.3276	24.9403
JUN91	1876	39	2137.5343	44.4370

AVG
1759.25

INDEX	
0.50135000	OCT
1.01350007	NOV
1.01577376	DEC
1.25394344	JAN
1.11809009	FEB
0.96120505	MAR
0.72474065	APR
1.04248969	MAY
0.87764672	JUN
0.97996305	JUL
0.91800483	AUG
1.59329259	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		7.7423997145
Std Err of Y Est		5.9191651949
R Squared		0.6443466782
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.015428	
Std Err of Coef.	0.004332	
t statistic	3.561191	

Y= 7.7423997145 + 0.0154286372 X

Unseasonalized Data for FY 91
Regression Output:

Constant		17.167875981
Std Err of Y Est		5.1709336375
R Squared		0.2201254884
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.009448	
Std Err of Coef.	0.006721	
t statistic	1.405632	

Y= 17.167875981 + 0.0094485723 X

Cost Center DB

GLAKE	Units	Dollars		
OCT89	86367	84		
NOV89	80316	102		
DEC89	98640	96		
JAN90	98641	97		
FEB90	96323	103		
MAR90	98591	83		
APR90	134497	96		
MAY90	109464	95		
JUN90	114909	82		
JUL90	107095	94		
AUG90	109816	79		
SEP90	71052	73		
OCT90	120109	113	139730.0112	131.4597
NOV90	118582	122	148346.9689	152.6229
DEC90	106522	111	108504.6188	113.0660
JAN91	140714	118	143331.5572	120.1950
FEB91	121161	120	126384.7943	125.1737
MAR91	137617	130	140248.0371	132.4854
APR91	148968	121	111286.4700	90.3930
MAY91	143965	125	132144.0414	114.7363
JUN91	0	0	0.0000	0.0000

AVG
100475.916

INDEX	
0.85957911	OCT
0.79935573	NOV
0.98172779	DEC
0.98173774	JAN
0.95866754	FEB
0.98124011	MAR
1.33859938	APR
1.08945510	MAY
1.14364719	JUN
1.06587731	JUL
1.09295842	AUG
0.70715453	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-5.0525174768
Std Err of Y Est	11.7834311232
R Squared	0.6346025386
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.000971
Std Err of Coef.	0.000301
t statistic	3.228076

Y= -5.0525174768 + 0.0009719762 X

Unseasonalized Data for FY 91
Regression Output:

Constant	87.154531412
Std Err of Y Est	5.2024588054
R Squared	0.3848732359
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.000253
Std Err of Coef.	0.000130
t statistic	1.937546

Y= 87.154531412 + 0.0002532326 X

Cost Center SM JAX	Units	Dollars		
OCT89	1385000	51		
NOV89	1134481	48		
DEC89	728236	25		
JAN90	1632374	74		
FEB90	1121543	48		
MAR90	1165872	56		
APR90	1271381	58		
MAY90	1471121	60		
JUN90	1039728	47		
JUL90	1730759	53		
AUG90	1208190	62		
SEP90	1146599	53		
OCT90	1058614	64	957675.2188	57.8976
NOV90	1080377	43	1193186.9450	47.4899
DEC90	1262268	96	2171749.9391	165.1694
JAN91	1534983	91	1178187.1750	69.8477
FEB91	1213922	59	1356142.2391	65.9123
MAR91	1083153	93	1164043.8066	99.9453
APR91	1324729	64	1305514.5506	63.0717
MAY91	1916257	73	1632058.6032	62.1734
JUN91	1078342	54	1299472.7322	65.0735

AVG
1252940.33

INDEX	
1.10539980	OCT
0.90545492	NOV
0.58122161	DEC
1.30283458	JAN
0.89512881	FEB
0.93050879	MAR
1.01471791	APR
1.17413492	MAY
0.82983041	JUN
1.38135787	JUL
0.96428374	AUG
0.91512657	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-29.397484951
Std Err of Y Est	24.237579187
R Squared	0.5993861188
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.0000784
Std Err of Coef.	0.0000242
t statistic	3.2362298

Y= -29.397484951 + 0.0000784105 X

Unseasonalized Data for FY 91
Regression Output:

Constant	45.584897354
Std Err of Y Est	19.195350608
R Squared	0.087823265
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.0000196
Std Err of Coef.	0.0000239
t statistic	0.8209454

Y= 45.584897354 + 0.0000196263 X

Cost Center SM

OAK	Units	Dollars		
OCT89	164148	47		
NOV89	155749	5		
DEC89	135784	5		
JAN90	112377	48		
FEB90	121247	6		
MAR90	125284	6		
APR90	152823	49		
MAY90	94885	8		
JUN90	146617	10		
JUL90	174822	33		
AUG90	267056	24		
SEP90	140025	21		
OCT90	116432	24	105853.8661	21.8195
NOV90	161177	18	154435.7222	17.2471
DEC90	130562	19	143495.4592	20.8821
JAN91	199619	21	265090.6463	27.8876
FEB91	197663	18	243290.0475	22.1550
MAR91	152639	21	181819.2507	25.0146
APR91	188781	20	184348.4642	19.5304
MAY91	191066	22	300507.8436	34.6015
JUN91	165950	23	168912.9280	23.4106

AVG
149234.75

INDEX	
1.09993148	OCT
1.04365102	NOV
0.90986851	DEC
0.75302166	JAN
0.81245822	FEB
0.83950956	MAR
1.02404433	APR
0.63581035	MAY
0.98245884	JUN
1.17145638	JUL
1.78950278	AUG
0.93828682	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	11.4567289861
Std Err of Y Est	3.5291322736
R Squared	0.5868415688
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000062
Std Err of Coef.	0.000019
t statistic	3.153197

Y= 11.4567289861 + 0.0000626164 X

Unseasonalized Data for FY 91
Regression Output:

Constant	24.222414865
Std Err of Y Est	2.1629048402
R Squared	0.0903582935
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	-0.00002
Std Err of Coef.	0.000025
t statistic	-0.83386

Y= 24.222414865 + -0.0000212793 X

Cost Center	FR			
OAK	Units	Dollars		
OCT89	132089	184		
NOV89	107531	160		
DEC89	149612	143		
JAN90	155254	167		
FEB90	144699	152		
MAR90	170132	176		
APR90	146763	164		
MAY90	183286	174		
JUN90	163052	175		
JUL90	144847	167		
AUG90	152540	181		
SEP90	159470	165		
OCT90	136758	211	156102.3442	240.8458
NOV90	122963	143	172410.6551	200.5052
DEC90	94188	131	94918.8533	132.0165
JAN91	98336	163	95497.7362	158.2953
FEB91	84788	165	88347.0795	171.9261
MAR91	103300	210	91545.6369	186.1044
APR91	104705	181	107565.7914	185.9454
MAY91	82850	186	68153.2476	153.0055
JUN91	78090	173	72209.2158	159.9718

AVG
150772.916

INDEX	
0.87607909	OCT
0.71319838	NOV
0.99230023	DEC
1.02972074	JAN
0.95971480	FEB
1.12839894	MAR
0.97340426	APR
1.21564272	MAY
1.08144090	JUN
0.96069641	JUL
1.01172016	AUG
1.05768332	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	105.596227739
Std Err of Y Est	22.033254907
R Squared	0.5780867972
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000674
Std Err of Coef.	0.000217
t statistic	3.096948

Y= 105.596227739 + 0.0006741479 X

Unseasonalized Data for FY 91
Regression Output:

Constant	138.74856825
Std Err of Y Est	28.069021668
R Squared	0.0604616964
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000346
Std Err of Coef.	0.000516
t statistic	0.671169

Y= 138.74856825 + 0.000346877 X

Cost Center AP

ASO	Units	Dollars		
OCT89	207	225		
NOV89	70	231		
DEC89	111	170		
JAN90	352	220		
FEB90	326	187		
MAR90	177	281		
APR90	257	249		
MAY90	192	209		
JUN90	100	247		
JUL90	196	214		
AUG90	327	225		
SEP90	227	79		
OCT90	261	227	267.0942	232.3003
NOV90	279	209	844.3071	632.4738
DEC90	193	203	368.3228	387.4069
JAN91	247	191	148.6444	114.9436
FEB91	96	191	62.38036	124.1109
MAR91	168	198	201.0621	236.9661
APR91	225	211	185.4571	173.9176
MAY91	116	193	127.9826	212.9366
JUN91	283	70	599.4883	148.2833

AVG
211.833333

INDEX	
0.97718332	OCT
0.33044846	NOV
0.52399685	DEC
1.66168371	JAN
1.53894571	FEB
0.83556254	MAR
1.21321793	APR
0.90637293	MAY
0.47206923	JUN
0.92525570	JUL
1.54366640	AUG
1.07159716	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	99.7871416
Std Err of Y Est	115.546215
R Squared	0.56977502
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.486767
Std Err of Coef.	0.159870
t	3.044758

Y= 99.78714 + 0.48676719 X

Unseasonalized Data for FY 91
Regression Output:

Constant	221.896987
Std Err of Y Est	47
R Squared	0
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	-0.16277
Std Err of Coef.	0.243137
t	-0.66949

Y= 221.8969 + -0.1627799 X

Cost Center SP

NORVA	Units	Dollars		
OCT89	12316	273		
NOV89	13075	241		
DEC89	11286	240		
JAN90	16857	256		
FEB90	17400	246		
MAR90	18387	264		
APR90	15803	234		
MAY90	18194	278		
JUN90	16507	229		
JUL90	16612	265		
AUG90	20788	251		
SEP90	19565	284		
OCT90	10081	204	13423.1893	271.6328
NOV90	13625	204	17088.9978	255.8646
DEC90	16041	495	23308.4381	719.2617
JAN91	16938	96	16477.9667	93.3927
FEB91	14367	244	13540.6223	229.9653
MAR91	14869	235	13261.5005	209.5940
APR91	15526	241	16111.7169	250.0917
MAY91	20405	248	18392.0521	223.5349
JUN91	17610	246	17494.9612	244.3930

AVG
16399.1666

INDEX	
0.75101377	OCT
0.79729661	NOV
0.68820570	DEC
1.02791808	JAN
1.06102952	FEB
1.12121550	MAR
0.96364652	APR
1.10944661	MAY
1.00657553	JUN
1.01297830	JUL
1.26762538	AUG
1.19304842	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-395.36112596
Std Err of Y Est	124.81107682
R Squared	0.547873548
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.0406170
Std Err of Coef.	0.0139459
t statistic	2.9124550

Y= -395.36112596 + 0.0406170579 X

Unseasonalized Data for FY 91
Regression Output:

Constant	188.05021443
Std Err of Y Est	111.657162229
R Squared	0.0103380118
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.0037325
Std Err of Coef.	0.0138032
t statistic	0.2704108

Y= 188.05021443 + 0.0037325441 X

Cost Center PD CHASN	Units	Dollars		
OCT89	95769	1164		
NOV89	125926	1111		
DEC89	97877	898		
JAN90	137768	1582		
FEB90	120999	1024		
MAR90	114573	1009		
APR90	100646	1217		
MAY90	109617	1243		
JUN90	90003	1063		
JUL90	110944	1120		
AUG90	100656	1427		
SEP90	105557	1224		
OCT90	96216	1552	109704.2470	1769.5705
NOV90	93379	1039	80972.0073	900.9511
DEC90	81196	816	90584.7481	910.3546
JAN91	91174	1243	72264.2917	985.1988
FEB91	92770	947	83719.5472	854.6126
MAR91	88681	1065	84518.0352	1015.0056
APR91	104720	1109	113614.6172	1203.1953
MAY91	112495	1103	112061.4928	1098.7495
JUN91	95959	1383	116420.5973	1677.9008

AVG
109194.583

Deseasonalized Data for FY 91
Regression Output:

INDEX		
0.87704899	OCT	
1.15322570	NOV	
0.89635398	DEC	
1.26167430	JAN	
1.10810441	FEB	
1.04925534	MAR	
0.92171238	APR	
1.00386847	MAY	
0.82424418	JUN	
1.01602109	JUL	
0.92180396	AUG	
0.96668714	SEP	

Constant		-257.22845281
Std Err of Y Est		246.60758316
R Squared		0.5370825951
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.0147368	
Std Err of Coef.	0.0051711	
t statistic	2.8498224	

Y= -257.22845281 + 0.0147368798 X

Unseasonalized Data for FY 91
Regression Output:

Constant		423.37957055
Std Err of Y Est		227.61545605
R Squared		0.0928516771
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.0075258	
Std Err of Coef.	0.0088910	
t statistic	0.8464566	

Y= 423.37957055 + 0.0075258687 X

Cost Center MA

JAX	Units	Dollars		
OCT89	148982	19		
NOV89	94930	20		
DEC89	93239	6		
JAN90	77480	25		
FEB90	90285	15		
MAR90	59836	17		
APR90	87484	18		
MAY90	71541	20		
JUN90	101236	16		
JUL90	84158	20		
AUG90	79762	29		
SEP90	88431	29		
OCT90	86553	22	52159.0339	13.2578
NOV90	73634	15	69639.5772	14.1863
DEC90	71171	17	68530.9377	16.3694
JAN91	75904	28	87954.1355	32.4451
FEB91	76215	24	75788.9805	23.8658
MAR91	80717	17	121111.0229	25.5075
APR91	92037	24	94452.8433	24.6300
MAY91	81897	20	102776.5891	25.0990
JUN91	81383	24	72173.8598	21.2842

AVG
89780.3333

Deseasonalized Data for FY 91
Regression Output:

INDEX			
1.65940573	OCT	Constant	4.716294057
1.05735851	NOV	Std Err of Y Est	4.7883576885
1.03852365	DEC	R Squared	0.4837582097
0.86299523	JAN	No. of Observations	9
1.00562112	FEB	Degrees of Freedom	7
0.66647112	MAR	X Coefficient(s)	0.000207
0.97442275	APR	Std Err of Coef.	0.000080
0.79684489	MAY	t statistic	2.561159
1.12759661	JUN		
0.93737678	JUL		
0.88841282	AUG		
0.98497072	SEP		

Y= 4.716294057 + 0.0002070926 X

Unseasonalized Data for FY 91
Regression Output:

Constant	3.612914674
Std Err of Y Est	4.2910916463
R Squared	0.1144668293
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000220
Std Err of Coef.	0.000231
t statistic	0.951231

Y= 3.612914674 + 0.0002202659 X

Cost Center CD

GLAKE	Units	Dollars		
OCT89	38168	27		
NOV89	28404	27		
DEC89	36322	41		
JAN90	36322	41		
FEB90	53209	40		
MAR90	45144	38		
APR90	40596	43		
MAY90	61480	38		
JUN90	36157	42		
JUL90	48026	37		
AUG90	39074	40		
SEP90	44603	35		
OCT90	40821	37	45231.7421	40.9979
NOV90	28304	44	42143.1885	65.5137
DEC90	46250	38	53851.9039	44.2459
JAN91	0	0	0.0000	0.0000
FEB91	0	8	0.0000	6.3586
MAR91	0	6	0.0000	5.6210
APR91	0	30	0.0000	31.2534
MAY91	38311	9	26354.1315	6.1911
JUN91	0	0	0.0000	0.0000

AVG
42292.0833

INDEX	
0.90248568	OCT
0.67161505	NOV
0.85883685	DEC
0.85883685	JAN
1.25813144	FEB
1.06743381	MAR
0.95989596	APR
1.45369996	MAY
0.85493541	JUN
1.13557895	JUL
0.92390813	AUG
1.05464182	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-22.79335312
Std Err of Y Est	21.717182648
R Squared	0.4790530116
No. of Observations	4
Degrees of Freedom	2
X Coefficient(s)	0.001480
Std Err of Coef.	0.001091
t statistic	1.356157

Y= -22.79335312 + 0.0014806097 X

Unseasonalized Data for FY 91
Regression Output:

Constant	45.584352735
Std Err of Y Est	18.878846395
R Squared	0.0288532937
No. of Observations	4
Degrees of Freedom	2
X Coefficient(s)	-0.00035
Std Err of Coef.	0.001450
t statistic	-0.24376

Y= 45.584352735 + -0.0003535612 X

Cost Center IC

SPCC	Units	Dollars		
OCT89	63897	1163		
NOV89	63896	1162		
DEC89	63875	1241		
JAN90	63863	1226		
FEB90	63855	1475		
MAR90	63831	1691		
APR90	64141	1179		
MAY90	64144	1316		
JUN90	64345	1241		
JUL90	64451	1187		
AUG90	64827	1397		
SEP90	64177	1346		
OCT90	64299	1423	64511.830626	1427.710
NOV90	64395	1412	64609.159533	1416.695
DEC90	63924	1066	64157.679123	1069.896
JAN91	64058	1335	64304.249612	1340.131
FEB91	64235	1394	64490.008574	1399.534
MAR91	64244	1423	64523.295483	1429.186
APR91	64534	1468	64501.300868	1467.256
MAY91	64325	1591	64289.399827	1590.119
JUN91	64276	1119	64039.753609	1114.887

AVG
64108.5

INDEX	
0.99670090	OCT
0.99668530	NOV
0.99635773	DEC
0.99617055	JAN
0.99604576	FEB
0.99567140	MAR
1.00050695	APR
1.00055374	MAY
1.00368905	JUN
1.00534250	JUL
1.01120756	AUG
1.00106850	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		-37245.983874
Std Err of Y Est		129.08162264
R Squared		0.477481971
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.599677	
Std Err of Coef.	0.237105	
t statistic	2.529163	

Y= -37245.983874 + 0.5996777273 X

Unseasonalized Data for FY 91
Regression Output:

Constant		-37191.2006
Std Err of Y Est		136.62745992
R Squared		0.4112822378
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.599961	
Std Err of Coef.	0.271305	
t statistic	2.211390	

Y= -37191.2006 + 0.5999616203 X

Cost Center DB

ASO	Units	Dollars		
OCT89	3918	17		
NOV89	6718	22		
DEC89	5764	20		
JAN90	6048	24		
FEB90	5824	16		
MAR90	6306	20		
APR90	5926	12		
MAY90	8104	16		
JUN90	8310	16		
JUL90	7440	17		
AUG90	7896	15		
SEP90	6394	16		
OCT90	7690	14	12863.77	23.41909
NOV90	6734	23	6569.609	22.43852
DEC90	4114	10	4677.854	11.37057
JAN91	6208	11	6727.386	11.92030
FEB91	4538	7	5106.808	7.877403
MAR91	6150	9	6391.864	9.353948
APR91	5374	13	5943.502	14.37765
MAY91	4330	17	3501.828	13.74851
JUN91	5528	11	4359.869	8.675571

AVG
6554

INDEX	
0.59780286	OCT
1.02502288	NOV
0.87946292	DEC
0.92279523	JAN
0.88861763	FEB
0.96216051	MAR
0.90418065	APR
1.23649679	MAY
1.26792798	JUN
1.13518462	JUL
1.20476045	AUG
0.97558742	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	4.70486202
Std Err of Y Est	4.39818757
R Squared	0.47498173
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.001439
Std Err of Coef.	0.000572
t	2.516519

Y= 4.704862 + 0.00143986 X

Unseasonalized Data for FY 91
Regression Output:

Constant	4.83965997
Std Err of Y Est	5
R Squared	0
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.001410
Std Err of Coef.	0.001434
t	0.983186

Y= 4.839659 + 0.00141007 X

Cost Center DB

NPFC	Units	Dollars		
OCT89	18448	31		
NOV89	21821	48		
DEC89	23226	69		
JAN90	21335	20		
FEB90	17716	41		
MAR90	26224	55		
APR90	18758	44		
MAY90	25048	44		
JUN90	24318	35		
JUL90	19417	34		
AUG90	19701	36		
SEP90	18449	-19		
OCT90	0	0	0.0000	0.0000
NOV90	40367	71	39227.6064	68.9960
DEC90	17665	23	16127.9513	20.9987
JAN91	17789	59	17680.6762	58.6407
FEB91	19724	18	23608.5495	21.5450
MAR91	21955	34	17753.1118	27.4929
APR91	27729	39	31346.3992	44.0878
MAY91	20049	32	16973.0404	27.0905
JUN91	20726	25	18072.8907	21.7998

AVG
21205.0833

INDEX	
0.86998007	OCT
1.02904570	NOV
1.09530340	DEC
1.00612667	JAN
0.83546005	FEB
1.2366846	MAR
0.88459921	APR
1.18122619	MAY
1.14680049	JUN
0.91567666	JUL
0.92906968	AUG
0.87002723	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	2.3158475605
Std Err of Y Est	14.8891258391
R Squared	0.4578146502
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.001505
Std Err of Coef.	0.000668
t statistic	2.250850

Y= 2.3158475605 + 0.0015051952 X

Unseasonalized Data for FY 91
Regression Output:

Constant	-0.6373774832
Std Err of Y Est	14.6037323264
R Squared	0.4614135899
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.001645
Std Err of Coef.	0.000725
t statistic	2.267217

Y= -0.6373774832 + 0.0016456583 X

Cost Center MA				
OAK	Units	Dollars		
OCT89	51060	48		
NOV89	48617	46		
DEC89	34880	45		
JAN90	47039	50		
FEB90	38925	45		
MAR90	36406	53		
APR90	41387	54		
MAY90	33945	56		
JUN90	33925	48		
JUL90	35655	44		
AUG90	80039	48		
SEP90	25653	40		
OCT90	36301	48	30069.0084	39.7596
NOV90	47193	40	41055.4444	34.7979
DEC90	33829	34	41019.8447	41.2272
JAN91	36257	51	32599.8134	45.8557
FEB91	45110	50	49014.6080	54.3279
MAR91	59858	66	69539.3401	76.6747
APR91	39460	64	40325.0080	65.4030
MAY91	30769	52	38337.0681	64.7901
JUN91	33233	44	41431.5346	54.8547

AVG
42294.25

INDEX	
1.20725630	OCT
1.14949431	NOV
0.82469839	DEC
1.11218428	JAN
0.92033787	FEB
0.86077894	MAR
0.97854909	APR
0.80259136	MAY
0.80211849	JUN
0.84302239	JUL
1.89243218	AUG
0.60653634	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	18.717191519
Std Err of Y Est	11.1443200092
R Squared	0.4408285316
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000806
Std Err of Coef.	0.000343
t statistic	2.349153

Y= 18.717191519 + 0.0008065801 X

Unseasonalized Data for FY 91
Regression Output:

Constant	28.057990233
Std Err of Y Est	9.6797110884
R Squared	0.2309928575
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000542
Std Err of Coef.	0.000374
t statistic	1.450050

Y= 28.057990233 + 0.0005427422 X

Cost Center AH

SAN	Units	Dollars		
OCT89	25610	127		
NOV89	24108	146		
DEC89	23991	149		
JAN90	25765	121		
FEB90	23863	158		
MAR90	29537	181		
APR90	25342	124		
MAY90	26258	170		
JUN90	26453	170		
JUL90	24843	110		
AUG90	26708	143		
SEP90	21754	149		
OCT90	25798	162	25538.7776	160.3722
NOV90	21642	194	22759.3501	204.0160
DEC90	18430	124	19476.0388	131.0379
JAN91	21780	129	21431.4411	126.9355
FEB91	20035	105	21285.7007	111.5547
MAR91	20716	137	17781.2859	117.5920
APR91	22861	159	22870.6224	159.0669
MAY91	20832	126	20113.7464	121.6557
JUN91	20663	108	19803.5063	103.5077

AVG
25352.6666

INDEX
1.01015014 OCT
0.95090588 NOV
0.94629098 DEC
1.01626390 JAN
0.94124220 FEB
1.16504509 MAR
0.99957926 APR
1.03570959 MAY
1.04340108 JUN
0.97989692 JUL
1.05345920 AUG
0.85805569 SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-54.382753304
Std Err of Y Est	25.707795202
R Squared	0.4247174129
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.009029
Std Err of Coef.	0.003971
t statistic	2.273308

Y= -54.382753304 + 0.0090295153 X

Unseasonalized Data for FY 91
Regression Output:

Constant	-28.671569946
Std Err of Y Est	25.40398472
R Squared	0.3117241045
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.007792
Std Err of Coef.	0.004376
t statistic	1.780544

Y= -28.671569946 + 0.0077924233 X

Cost Center AP

SPCC	Units	Dollars		
OCT89	16694	227		
NOV89	16694	228		
DEC89	18281	200		
JAN90	17143	195		
FEB90	18992	244		
MAR90	18785	231		
APR90	14401	207		
MAY90	14654	197		
JUN90	21250	196		
JUL90	14248	164		
AUG90	20254	177		
SEP90	13821	129		
OCT90	14352	260	14702.2602133	266.3452
NOV90	14941	223	15305.634744	228.4423
DEC90	18697	167	17490.574226	156.2243
JAN91	15615	218	15577.1230969	217.4712
FEB91	17874	212	16094.7094303	190.8961
MAR91	17698	230	16111.8377518	209.3865
APR91	16260	331	19309.008749	393.0677
MAY91	16972	254	19806.554092	296.4214
JUN91	16324	188	13137.1070902	151.2972

AVG
17101.4166

INDEX	
0.97617643	OCT
0.97617643	NOV
1.06897576	DEC
1.00243157	JAN
1.11055127	FEB
1.09844700	MAR
0.84209397	APR
0.85688807	MAY
1.24258711	JUN
0.83314735	JUL
1.18434632	AUG
0.80817865	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		-141.85079348
Std Err of Y Est		61.523259787
R Squared		0.4227557064
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.022951	
Std Err of Coef.	0.010136	
t statistic	2.264195	

Y= -141.85079348 + 0.0229519354 X

Unseasonalized Data for FY 91
Regression Output:

Constant		446.51423643
Std Err of Y Est		46.522569452
R Squared		0.1539949588
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	-0.01301	
Std Err of Coef.	0.011529	
t statistic	-1.12879	

Y= 446.51423643 + -0.0130141134 X

Cost Center	SM				
NORVA	Units	Dollars			
OCT89	1300471	34			
NOV89	1319873	35			
DEC89	933831	47			
JAN90	2077178	88			
FEB90	1429539	66			
MAR90	1480603	65			
APR90	1662827	39			
MAY90	1638774	52			
JUN90	1456632	45			
JUL90	1945512	56			
AUG90	2745066	100			
SEP90	2006564	153			
OCT90	1417439	23	1816287.0360	29.4719	
NOV90	1417438	23	1789586.5372	29.0387	
DEC90	1530452	106	2731066.0499	189.1552	
JAN91	2056956	65	1650182.8333	52.1459	
FEB91	1411786	55	1645711.2578	64.1132	
MAR91	1067810	83	1201810.8925	93.4158	
APR91	1811754	69	1815653.3627	69.1485	
MAY91	1969867	69	2003081.4863	70.1634	
JUN91	0	0	0.0000	0.0000	

AVG
1666405.83

INDEX	
0.78040473	OCT
0.79204775	NOV
0.56038630	DEC
1.24650187	JAN
0.85785765	FEB
0.88850085	MAR
0.99785236	APR
0.98341830	MAY
0.87411599	JUN
1.16748991	JUL
1.64729740	AUG
1.20412684	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-64.594759703
Std Err of Y Est	42.268350526
R Squared	0.4127127468
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.0000759
Std Err of Coef.	0.0000370
t statistic	2.0534034

Y= -64.594759703 + 0.0000759832 X

Unseasonalized Data for FY 91
Regression Output:

Constant	47.947098444
Std Err of Y Est	30.320242319
R Squared	0.0104007417
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.0000086
Std Err of Coef.	0.0000343
t statistic	0.2511181

Y= 47.947098444 + 0.0000086272 X

Cost Center MA

CHASN	Units	Dollars		
OCT89	104703	17		
NOV89	161031	19		
DEC89	140892	18		
JAN90	156666	24		
FEB90	160490	25		
MAR90	170137	27		
APR90	137904	30		
MAY90	135626	26		
JUN90	163249	23		
JUL90	144968	24		
AUG90	127536	26		
SEP90	127613	26		
OCT90	150571	30	207420.4698	41.3268
NOV90	148897	27	133366.2261	24.1838
DEC90	93443	19	95659.8825	19.4508
JAN91	93075	27	85689.5168	24.8576
FEB91	124149	24	111574.4239	21.5691
MAR91	116107	36	98430.3518	30.5192
APR91	109441	36	114464.9686	37.6526
MAY91	131852	35	140221.0364	37.2216
JUN91	127263	39	112440.0503	34.4575

AVG
144234.583

INDEX	
0.72592160	OCT
1.11645207	NOV
0.97682536	DEC
1.08618887	JAN
1.11270124	FEB
1.17958533	MAR
0.95610911	APR
0.94031540	MAY
1.13182980	JUN
1.00508488	JUL
0.88422621	AUG
0.88476006	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	13.1384558613
Std Err of Y Est	6.5097124541
R Squared	0.4086430242
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000139
Std Err of Coef.	0.000063
t statistic	2.199359

Y= 13.1384558613 + 0.000139177 X

Unseasonalized Data for FY 91
Regression Output:

Constant	20.141518905
Std Err of Y Est	6.8383632686
R Squared	0.0700497575
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000083
Std Err of Coef.	0.000115
t statistic	0.726143

Y= 20.141518905 + 0.0000837838 X

Cost Center IF

SPCC	Units	Dollars		
OCT89	128031	897		
NOV89	106054	898		
DEC89	66060	801		
JAN90	90313	787		
FEB90	50836	987		
MAR90	157961	986		
APR90	56786	848		
MAY90	61459	843		
JUN90	95795	862		
JUL90	68770	778		
AUG90	97480	822		
SEP90	79331	799		
OCT90	100306	1056	69131.444765	727.8009
NOV90	86159	944	71686.512912	785.4323
DEC90	67824	688	90595.930245	918.9962
JAN91	120135	947	117377.037138	925.2595
FEB91	111922	909	194270.98853	1577.816
MAR91	66933	983	37389.897563	549.1203
APR91	55815	968	86730.831455	1504.173
MAY91	55583	1090	79803.208518	1564.965
JUN91	69867	743	64356.603069	684.3997

AVG
88239.6666

INDEX
1.45094609 OCT
1.20188577 NOV
0.74864290 DEC
1.02349661 JAN
0.57611278 FEB
1.79013595 MAR
0.64354277 APR
0.69650081 MAY
1.08562286 JUN
0.77935471 JUL
1.10471858 AUG
0.89904011 SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		505.14516758
Std Err of Y Est		338.77048776
R Squared		0.3987435457
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.005782	
Std Err of Coef.	0.002683	
t statistic	2.154596	

Y= 505.14516758 + 0.0057825867 X

Unseasonalized Data for FY 91
Regression Output:

Constant		889.46394636
Std Err of Y Est		140.96201896
R Squared		0.0064286851
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.000439	
Std Err of Coef.	0.002065	
t statistic	0.212819	

Y= 889.46394636 + 0.0004394896 X

Cost Center PP

PUGET	Units	Dollars		
OCT89	1364	26		
NOV89	1348	28		
DEC89	1158	21		
JAN90	1673	32		
FEB90	1273	27		
MAR90	1563	30		
APR90	1536	29		
MAY90	1844	30		
JUN90	1765	27		
JUL90	1771	29		
AUG90	1709	32		
SEP90	1525	26		
OCT90	1534	32	1736.5277	36.2248
NOV90	1374	25	1573.8654	28.6366
DEC90	1151	27	1534.7495	36.0019
JAN91	1677	32	1547.7751	29.5342
FEB91	1404	28	1702.9796	33.9626
MAR91	1276	28	1260.5568	27.6611
APR91	1507	26	1514.9307	26.1368
MAY91	1781	30	1491.3299	25.1207
JUN91	1659	24	1451.3508	20.9960

AVG
1544.08333

INDEX	
0.88337201	OCT
0.87300987	NOV
0.74995952	DEC
1.08349074	JAN
0.82443736	FEB
1.01225106	MAR
0.99476496	APR
1.19423606	MAY
1.14307302	JUN
1.14695882	JUL
1.10680554	AUG
0.98764099	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-5.7086389115
Std Err of Y Est	4.3619087792
R Squared	0.3781729405
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.022850
Std Err of Coef.	0.011074
t statistic	2.063286

Y= -5.7086389115 + 0.0228500763 X

Unseasonalized Data for FY 91
Regression Output:

Constant	21.362887647
Std Err of Y Est	2.9123096995
R Squared	0.1004419015
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.004470
Std Err of Coef.	0.005056
t statistic	0.884080

Y= 21.362887647 + 0.0044701049 X

Cost Center PD

PEN	Units	Dollars		
OCT89	64406	551		
NOV89	66093	669		
DEC89	56272	666		
JAN90	63299	714		
FEB90	54832	527		
MAR90	65410	571		
APR90	61640	539		
MAY90	64437	616		
JUN90	55907	535		
JUL90	57401	605		
AUG90	68664	664		
SEP90	60769	638		
OCT90	59248	639	56661.3543	611.1026
NOV90	55758	554	51962.6518	516.2902
DEC90	53179	555	58208.6329	607.4915
JAN91	58436	594	56862.1420	578.0018
FEB91	57752	570	64874.2762	640.2954
MAR91	57502	620	54147.4969	583.8310
APR91	62447	598	62400.5666	597.5553
MAY91	55126	646	52693.9496	617.4998
JUN91	0	0	0.0000	0.0000

AVG
61594.1666

INDEX	
1.04565096	OCT
1.07303992	NOV
0.91359300	DEC
1.02767848	JAN
0.89021417	FEB
1.06195121	MAR
1.00074411	APR
1.04615426	MAY
0.90766712	JUN
0.93192266	JUL
1.11478089	AUG
0.98660316	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		310.38388968
Std Err of Y Est		31.711207113
R Squared		0.3702415391
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.0049561	
Std Err of Coef.	0.0026388	
t statistic	1.8781539	

Y= 310.38388968 + 0.0049561851 X

Unseasonalized Data for FY 91
Regression Output:

Constant		381.92559653
Std Err of Y Est		37.112082728
R Squared		0.086464724
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.0037449	
Std Err of Coef.	0.0049694	
t statistic	0.7535853	

Y= 381.92559653 + 0.0037449183 X

Cost Center PP

JAX	Units	Dollars		
OCT89	2556	81		
NOV89	2227	52		
DEC89	2033	62		
JAN90	2342	69		
FEB90	2185	61		
MAR90	2213	69		
APR90	2295	97		
MAY90	3007	76		
JUN90	2921	57		
JUL90	2731	75		
AUG90	4280	68		
SEP90	2531	25		
OCT90	2432	123	2483.4596	125.6026
NOV90	2350	58	2754.2415	67.9770
DEC90	2288	33	2937.4671	42.3673
JAN91	2455	67	2736.0182	74.6693
FEB91	2269	84	2710.4252	100.3419
MAR91	2239	52	2640.7486	61.3305
APR91	2974	53	3382.3041	60.2764
MAY91	3511	66	3047.5566	57.2882
JUN91	2950	81	2635.9965	72.3782

AVG
2610.08333

INDEX	
0.97927907	OCT
0.85322946	NOV
0.77890233	DEC
0.89728935	JAN
0.83713802	FEB
0.84786564	MAR
0.87928227	APR
1.15207049	MAY
1.11912135	JUN
1.04632674	JUL
1.63979438	AUG
0.96970083	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		230.65418108
Std Err of Y Est		21.393284476
R Squared		0.3622258902
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	-0.055813	
Std Err of Coef.	0.0279919	
t statistic	-1.993908	

Y= 230.65418108 + -0.0558134899 X

Unseasonalized Data for FY 91
Regression Output:

Constant		65.365034416
Std Err of Y Est		27.401552419
R Squared		0.0004386839
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.0012235	
Std Err of Coef.	0.0220753	
t statistic	0.0554268	

Y= 65.365034416 + 0.0012235678 X

Cost Center FO

NORVA	Units	Dollars		
OCT89	7521	207		
NOV89	8837	227		
DEC89	6008	182		
JAN90	9545	208		
FEB90	8033	193		
MAR90	6941	217		
APR90	6873	194		
MAY90	5015	208		
JUN90	8624	190		
JUL90	7019	183		
AUG90	9989	206		
SEP90	6306	231		
OCT90	4941	184	4966.1287	184.9358
NOV90	4941	185	4226.5762	158.2507
DEC90	6663	466	8383.3693	586.3200
JAN91	4981	105	3944.7485	83.1557
FEB91	6118	179	5757.1880	168.4434
MAR91	4939	197	5378.9275	214.5472
APR91	6869	181	7554.8506	199.0723
MAY91	6794	161	10240.7865	242.6798
JUN91	0	0	0.0000	0.0000

AVG
7559.25

INDEX	
0.99493997	OCT
1.16903131	NOV
0.79478784	DEC
1.26269140	JAN
1.06267156	FEB
0.91821278	MAR
0.90921718	APR
0.66342560	MAY
1.14085392	JUN
0.92853126	JUL
1.32142739	AUG
0.83420974	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-20.260681176
Std Err of Y Est	133.61298165
R Squared	0.3340732764
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.039631
Std Err of Coef.	0.022842
t statistic	1.734935

Y= -20.260681176 + 0.0396310864 X

Unseasonalized Data for FY 91
Regression Output:

Constant	-60.9370312
Std Err of Y Est	107.670420879
R Squared	0.1535286048
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.046393
Std Err of Coef.	0.044472
t statistic	1.043191

Y= -60.9370312 + 0.0463931205 X

Cost Center DB

OAK	Units	Dollars		
OCT89	146653	183		
NOV89	145252	188		
DEC89	158152	193		
JAN90	129287	204		
FEB90	143394	189		
MAR90	181480	214		
APR90	139548	192		
MAY90	161718	202		
JUN90	153397	200		
JUL90	155445	171		
AUG90	126818	176		
SEP90	130088	200		
OCT90	142383	177	143305.0158	178.1462
NOV90	114301	192	116150.7752	195.1072
DEC90	99013	149	92408.4604	139.0611
JAN91	102133	197	116601.8482	224.9083
FEB91	117151	175	120589.4250	180.1363
MAR91	116712	127	94925.0740	103.2926
APR91	113912	229	120486.9648	242.2178
MAY91	120715	183	110178.5572	167.0271
JUN91	121465	179	116876.8484	172.2386

AVG
147602.666

INDEX	
0.99356606	OCT
0.98407436	NOV
1.07147115	DEC
0.87591235	JAN
0.97148651	FEB
1.22951708	MAR
0.94543007	APR
1.09563061	MAY
1.03925629	JUN
1.05313137	JUL
0.85918501	AUG
0.88133909	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-5.1443071082
Std Err of Y Est	36.375895665
R Squared	0.3323207878
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.001598
Std Err of Coef.	0.000856
t statistic	1.866568

Y= -5.1443071082 + 0.0015980584 X

Unseasonalized Data for FY 91
Regression Output:

Constant	173.08857805
Std Err of Y Est	30.773739721
R Squared	0.0004280165
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.000047
Std Err of Coef.	0.000875
t statistic	0.054748

Y= 173.08857805 + 0.0000479133 X

Cost Center PD				
PUGET	Units	Dollars		
OCT89	68895	638		
NOV89	42467	688		
DEC89	39199	549		
JAN90	52161	749		
FEB90	47593	537		
MAR90	48815	664		
APR90	57120	674		
MAY90	52303	654		
JUN90	47507	674		
JUL90	44814	530		
AUG90	53413	647		
SEP90	44389	611		
OCT90	57154	776	41387.5319	561.9331
NOV90	49308	634	57926.3825	744.8148
DEC90	42523	520	54120.2147	661.8186
JAN91	57992	711	55466.7577	680.0397
FEB91	45572	596	47771.1405	624.7608
MAR91	50923	720	52044.0745	735.8509
APR91	51802	747	45244.8269	652.4436
MAY91	44378	782	42330.3372	745.9174
JUN91	39217	553	41183.8899	580.7352

AVG
49889.6666

INDEX	
1.38094729	OCT
0.85121835	NOV
0.78571380	DEC
1.04552712	JAN
0.95396508	FEB
0.97845913	MAR
1.14492647	APR
1.04837341	MAY
0.95224127	JUN
0.89826216	JUL
1.07062250	AUG
0.88974336	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		373.41454572
Std Err of Y Est		60.47132749
R Squared		0.3205384241
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.006006	
Std Err of Coef.	0.003305	
t statistic	1.817216	

Y= 373.41454572 + 0.0060062456 X

Unseasonalized Data for FY 91
Regression Output:

Constant		169.21623968
Std Err of Y Est		77.439025378
R Squared		0.4537151745
No. of Observations		9
Degrees of Freedom		7
X Coefficient(s)	0.010290	
Std Err of Coef.	0.004267	
t statistic	2.411188	

Y= 169.21623968 + 0.0102902092 X

Cost Center DB

NORVA	Units	Dollars		
OCT89	10036	11		
NOV89	17882	18		
DEC89	11426	9		
JAN90	11018	10		
FEB90	10454	9		
MAR90	14532	11		
APR90	9603	18		
MAY90	14543	7		
JUN90	11372	11		
JUL90	9073	24		
AUG90	11144	10		
SEP90	15658	6		
OCT90	13173	9	16050.7107	10.9661
NOV90	13173	8	9008.2168	5.4707
DEC90	12436	20	13309.3462	21.4045
JAN91	9174	4	10181.8383	4.4394
FEB91	8850	9	10352.1607	10.5276
MAR91	13456	11	11322.9820	9.2563
APR91	8526	10	10856.9697	12.7340
MAY91	13578	11	11417.0007	9.2493
JUN91	0	0	0.0000	0.0000

AVG
12228.4166

INDEX
0.82071132 OCT
1.46233159 NOV
0.93438098 DEC
0.90101607 JAN
0.85489399 FEB
1.18837952 MAR
0.78530199 APR
1.18927906 MAY
0.92996504 JUN
0.74196032 JUL
0.91131994 AUG
1.28046013 SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-3.6518181841
Std Err of Y Est	4.8092667069
R Squared	0.2667245754
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.001224
Std Err of Coef.	0.000828
t statistic	1.477316

Y= -3.6518181841 + 0.0012244699 X

Unseasonalized Data for FY 91
Regression Output:

Constant	2.2405656337
Std Err of Y Est	4.5868259847
R Squared	0.1203217026
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.000693
Std Err of Coef.	0.000765
t statistic	0.905911

Y= 2.2405656337 + 0.0006937128 X

Cost Center PP

PEN	Units	Dollars		
OCT89	2248	45		
NOV89	2076	43		
DEC89	1676	42		
JAN90	2422	53		
FEB90	2255	48		
MAR90	2448	52		
APR90	2304	52		
MAY90	2705	52		
JUN90	2721	0		
JUL90	2498	44		
AUG90	2534	40		
SEP90	2305	39		
OCT90	2319	46	2423.5338	48.0735
NOV90	2244	43	2539.4528	48.6615
DEC90	1943	48	2723.6006	67.2840
JAN91	2137	48	2072.8841	46.5599
FEB91	1677	48	1747.1539	50.0080
MAR91	2089	43	2004.8028	41.2669
APR91	2413	44	2460.4780	44.8657
MAY91	2774	55	2409.2609	47.7683
JUN91	0	45	0.0000	38.8534

AVG
2349.33333

INDEX	
0.95686719	OCT
0.88365493	NOV
0.71339387	DEC
1.03093076	JAN
0.95984676	FEB
1.04199772	MAR
0.98070374	APR
1.15139046	MAY
1.15820090	JUN
1.06328036	JUL
1.07860385	AUG
0.98112939	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	21.023556767
Std Err of Y Est	7.1719779611
R Squared	0.2649800043
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.0123114
Std Err of Coef.	0.0083710
t statistic	1.4707288

Y= 21.023556767 + 0.0123114837 X

Unseasonalized Data for FY 91
Regression Output:

Constant	37.278061095
Std Err of Y Est	3.9719305452
R Squared	0.1305865117
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.0043632
Std Err of Coef.	0.0045961
t statistic	0.9493177

Y= 37.278061095 + 0.0043632366 X

Cost Center AH

NORVA	Units	Dollars		
OCT89	35052	170		
NOV89	34391	443		
DEC89	29354	-71		
JAN90	34365	205		
FEB90	34286	186		
MAR90	36243	190		
APR90	37736	222		
MAY90	34366	215		
JUN90	33133	118		
JUL90	31888	170		
AUG90	33941	313		
SEP90	28329	170		
OCT90	34928	130	33471.5041	124.5790
NOV90	34927	130	34113.8546	126.9734
DEC90	31842	505	36437.3984	577.8810
JAN91	35321	313	34524.7829	305.9443
FEB91	34554	201	33852.8956	196.9217
MAR91	42986	406	39839.8054	376.2844
APR91	32943	259	29323.8910	230.5463
MAY91	30175	234	29493.9274	228.7184
JUN91	0	0	0.0000	0.0000

AVG
33590.3333

INDEX	
1.04351450	OCT
1.02383622	NOV
0.87388236	DEC
1.02306219	JAN
1.02071032	FEB
1.07897113	MAR
1.12341844	APR
1.02309196	MAY
0.98638497	JUN
0.94932073	JUL
1.01043951	AUG
0.84336763	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant		-479.9478563
Std Err of Y Est		139.61731305
R Squared		0.2577699018
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.022162	
Std Err of Coef.	0.015353	
t statistic	1.443518	

Y= -479.9478563 + 0.0221628953 X

Unseasonalized Data for FY 91
Regression Output:

Constant		62.269981782
Std Err of Y Est		139.77052927
R Squared		0.0305414874
No. of Observations		8
Degrees of Freedom		6
X Coefficient(s)	0.006049	
Std Err of Coef.	0.013914	
t statistic	0.434766	

Y= 62.269981782 + 0.0060496411 X

Cost Center PP

CHASN	Units	Dollars		
OCT89	5740	48		
NOV89	2444	43		
DEC89	2018	35		
JAN90	2298	45		
FEB90	2150	43		
MAR90	2455	46		
APR90	2047	49		
MAY90	2636	45		
JUN90	2487	51		
JUL90	2972	55		
AUG90	2719	39		
SEP90	2324	36		
OCT90	2146	42	1006.0154	19.6890
NOV90	2019	43	2222.9102	47.3428
DEC90	1782	42	2376.1472	56.0035
JAN91	2010	41	2353.6010	48.0088
FEB91	1734	51	2170.1884	63.8291
MAR91	2514	33	2755.5010	36.1701
APR91	2575	42	3384.9027	55.2101
MAY91	3071	45	3134.8821	45.9361
JUN91	2574	38	2784.9638	41.1145

AVG
2690.83333

INDEX	
2.13316816	OCT
0.90826881	NOV
0.74995354	DEC
0.85401052	JAN
0.79900898	FEB
0.91235676	MAR
0.76073087	APR
0.97962217	MAY
0.92424899	JUN
1.10449055	JUL
1.01046763	AUG
0.86367296	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	22.611378793
Std Err of Y Est	11.8546647962
R Squared	0.2554947831
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.0094551
Std Err of Coef.	0.0061004
t statistic	1.5499088

Y= 22.611378793 + 0.0094551512 X

Unseasonalized Data for FY 91
Regression Output:

Constant	50.373209323
Std Err of Y Est	4.886041077
R Squared	0.1152799785
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	-0.003738
Std Err of Coef.	0.0039144
t statistic	-0.955043

Y= 50.373209323 + -0.003738501 X

Cost Center FO

JAX	Units	Dollars		
OCT89	4525	89		
NOV89	3889	81		
DEC89	3924	99		
JAN90	4243	85		
FEB90	3768	62		
MAR90	3773	65		
APR90	3672	59		
MAY90	4073	62		
JUN90	3933	60		
JUL90	3033	55		
AUG90	3820	128		
SEP90	3307	146		
OCT90	2687	159	2274.3006	134.5790
NOV90	3015	37	2969.2594	36.4387
DEC90	2667	58	2603.1116	56.6106
JAN91	2978	70	2688.1310	63.1864
FEB91	2211	69	2247.3806	70.1354
MAR91	2636	63	2675.8230	63.9518
APR91	2564	87	2674.3246	90.7435
MAY91	3130	92	2943.2605	86.5112
JUN91	2905	80	2828.9219	77.9049

AVG
3830

INDEX	
1.18146214	OCT
1.01540469	NOV
1.02454308	DEC
1.10783289	JAN
0.98381201	FEB
0.98511749	MAR
0.95874673	APR
1.06344647	MAY
1.02689295	JUN
0.79190600	JUL
0.99738903	AUG
0.86344647	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	218.29558953
Std Err of Y Est	25.416282981
R Squared	0.2520880318
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	-0.05373
Std Err of Coef.	0.034985
t statistic	-1.53603

Y= 218.29558953 + -0.0537387619 X

Unseasonalized Data for FY 91
Regression Output:

Constant	103.903609915
Std Err of Y Est	36.299972838
R Squared	0.0054350677
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	-0.00887
Std Err of Coef.	0.045396
t statistic	-0.19558

Y= 103.903609915 + -0.0088788162 X

Cost Center SP

JAX	Units	Dollars		
OCT89	5480	105		
NOV89	4458	108		
DEC89	5896	46		
JAN90	4621	166		
FEB90	4411	80		
MAR90	6920	103		
APR90	4789	118		
MAY90	4908	118		
JUN90	5920	106		
JUL90	7000	122		
AUG90	6798	153		
SEP90	8616	175		
OCT90	4216	118	4476.1021	125.2799
NOV90	4863	80	6346.6441	104.4071
DEC90	5983	87	5903.9336	85.8503
JAN91	4767	109	6001.9051	137.2368
FEB91	5641	101	7440.4462	133.2184
MAR91	5452	101	4583.8425	84.9171
APR91	5817	108	7066.9849	131.2076
MAY91	5956	114	7060.4125	135.1389
JUN91	5930	88	5827.9112	86.4850

AVG
5818.08333

INDEX
0.94189094 OCT
0.76623172 NOV
1.01339215 DEC
0.79424781 JAN
0.75815345 FEB
1.18939513 MAR
0.82312330 APR
0.84357677 MAY
1.01751722 JUN
1.20314536 JUL
1.16842602 AUG
1.48090006 SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	46.651809292
Std Err of Y Est	21.373674184
R Squared	0.2504308756
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	0.0110381
Std Err of Coef.	0.0072178
t statistic	1.5292803

Y= 46.651809292 + 0.0110381053 X

Unseasonalized Data for FY 91
Regression Output:

Constant	131.88676092
Std Err of Y Est	13.4551970137
R Squared	0.0789997916
No. of Observations	9
Degrees of Freedom	7
X Coefficient(s)	-0.005778
Std Err of Coef.	0.0074573
t statistic	-0.774875

Y= 131.88676092 + -0.0057785264 X

Cost Center PD NORVA	Units	Dollars		
OCT89	264324	3412		
NOV89	229793	2979		
DEC89	221004	3105		
JAN90	263366	4313		
FEB90	254057	3013		
MAR90	277937	3396		
APR90	263818	3056		
MAY90	268831	3630		
JUN90	264303	3120		
JUL90	268815	3399		
AUG90	277482	3514		
SEP90	274419	4096		
OCT90	251790	2176	248317.9219	2145.9939
NOV90	251789	2176	285631.5280	2468.4724
DEC90	245840	7534	289973.6921	8886.5189
JAN91	254890	3845	252289.5573	3805.7725
FEB91	260683	3579	267477.7923	3672.2879
MAR91	258672	4004	242610.3032	3755.3800
APR91	242876	3956	239986.2521	3908.9314
MAY91	245616	3532	238168.0451	3424.8971
JUN91	0	0	0.0000	0.0000

AVG
260679.083

INDEX	
1.01398239	OCT
0.88151683	NOV
0.84780104	DEC
1.01030737	JAN
0.97459679	FEB
1.06620368	MAR
1.01204130	APR
1.03127184	MAY
1.01390183	JUN
1.03121046	JUL
1.06445824	AUG
1.05270816	SEP

Deseasonalized Data for FY 91
Regression Output:

Constant	-8794.0408675
Std Err of Y Est	1954.7928031
R Squared	0.2409286974
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	0.0496114
Std Err of Coef.	0.0359503
t statistic	1.3799984

Y= -8794.0408675 + 0.0496114357 X

Unseasonalized Data for FY 91
Regression Output:

Constant	23264.332099
Std Err of Y Est	1715.9735499
R Squared	0.0886496767
No. of Observations	8
Degrees of Freedom	6
X Coefficient(s)	-0.077187
Std Err of Coef.	0.1010354
t statistic	-0.763961

Y= 23264.332099 + -0.0771871847 X

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